

NO. THIRTY-NINE

AMERICAN FABRICS NO. THIRTY-NINE WINTER 1957 FOUR DOLLARS



fashion says: discover an intriguing new you . . . with the new

NYLONS IN COLOR

Now—a new fashion in nylons that can reveal new beauty in you! *Now* use color for your legs as you do for your face: to look dashing by day, wickedly pretty by night. For instance? For day: never-before neutrals; playful reds, loden greens, sapphire blues. For evening: misty pastels, jewel-y glitter, nylons of winking iridescence. Color, pale or deep but *always* hauntingly lovely, makes brilliant use of today's finer nylon yarn. Right now, a good share of that yarn is the product of a new maker, a new standard of perfection, a new and completely integrated plant. The new brand: *Chemstrand nylon.*

CHEMSTRAND® NYLON

Chemstrand makes only the yarn; America's finest mills and manufacturers do the rest.

THE CHEMSTRAND CORPORATION, 350 Fifth Ave., New York 1 • Plants: CHEMSTRAND® NYLON—Pensacola, Florida • ACRILAN® ACRYLIC FIBER—Decatur, Alabama



AMERICAN FABRICS

dedicated to the belief that Fashion begins with the Fabric . . .
that the American textile industry casts a major influence on the economic and social
aspects of the world in which we live and that it has deservedly attained
the world's pinnacle from which it can never be dislodged.
This volume number thirty-nine of American Fabrics, focussing its editorial spotlight
on Pre-Inca art as a source of creative design ideas and on
apparel techniques from the Thirties as an inspiration for designers today,
presents a comprehensive report on fabrics for summer and on
the latest developments in fashion, decorative and industrial fabrics.

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Why is this tag important to you?

If you make fabrics of Avisco rayon or acetate the Avisco Integrity Program offers you quality testing at no cost to you.

If you make garments it gives you the confidence to make volume commitments to your resources and eases your selling job.

If you retail garments it speeds sales to consumers (both men and women) and keeps them sold.

When you wear garments it assures you that every tagged garment has been made with quality-constructed fabric and materials which will perform as represented on the tag.

This tag is backed by millions of dollars' worth of national magazine and TV advertising. It is frequently mentioned by fashion editors and commentators.

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This tag certifies complete washability. Colors will not fade or bleed, the fabric will not shrink out of fit and it will resist chlorine damage.



This tag certifies the fabric may be safely laundered by machine or hand in water not exceeding 105° F. Fabric characteristics are maintained just as with the completely washable identification.



This tag certifies that the fabric may be safely dry cleaned by any reputable commercial cleaner. The fabric will resist fume fading and color migration due to perspiration.



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From the careful selection of the finest cocoons, to the spinning and weaving of fabrics for the world of fashion, Kanebo quality is a time-honored tradition. It is the strict adherence to this tradition that underscores the true advantages of Kanebo silks. A careful and critical eye is kept on every step of production. Each completely integrated facility is controlled in order to create the finest Kanebo silks. These choice fabrics, loomed with proficiency, skilled artistry and dependability are the reason why Kanebo's 34 mills enjoy the highest reputation in every corner of the world.

Kanebo is the registered trade-name of the Kanegafuchi Spinning Co. Ltd., Head Office: Osaka, Japan

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add a new dimension to fashion

Silken luxury weaves once needed all the pampering they could get. Today "delicate" fabrics, such as Klopman O.K. Arnel Taffeta, have the new dimension of ***practicality.*** Depending on type of construction, they can be wrinkle-resistant, permanently pleated, machine-washed and hot-ironed.

To protect their bright sales future, Klopman uses this selvage mark (K) to identify Arnel Fabrics which have been thoroughly tested BOTH in the greige and in the finish. The O.K. symbol is your assurance that garments cut from these fabrics will provide complete satisfaction in use.

For quality that's a ***tested success,*** insist on O.K. Fabrics of Arnel, woven by the mill which pioneered in Arnel constructions and finished by leading converters.

*Celanese's ease-of-care triacetate



America's leading weaver of Arnel
...and fine fabrics
sold only through converters.

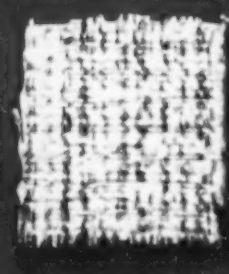
KLOPMAN MILLS, INC.

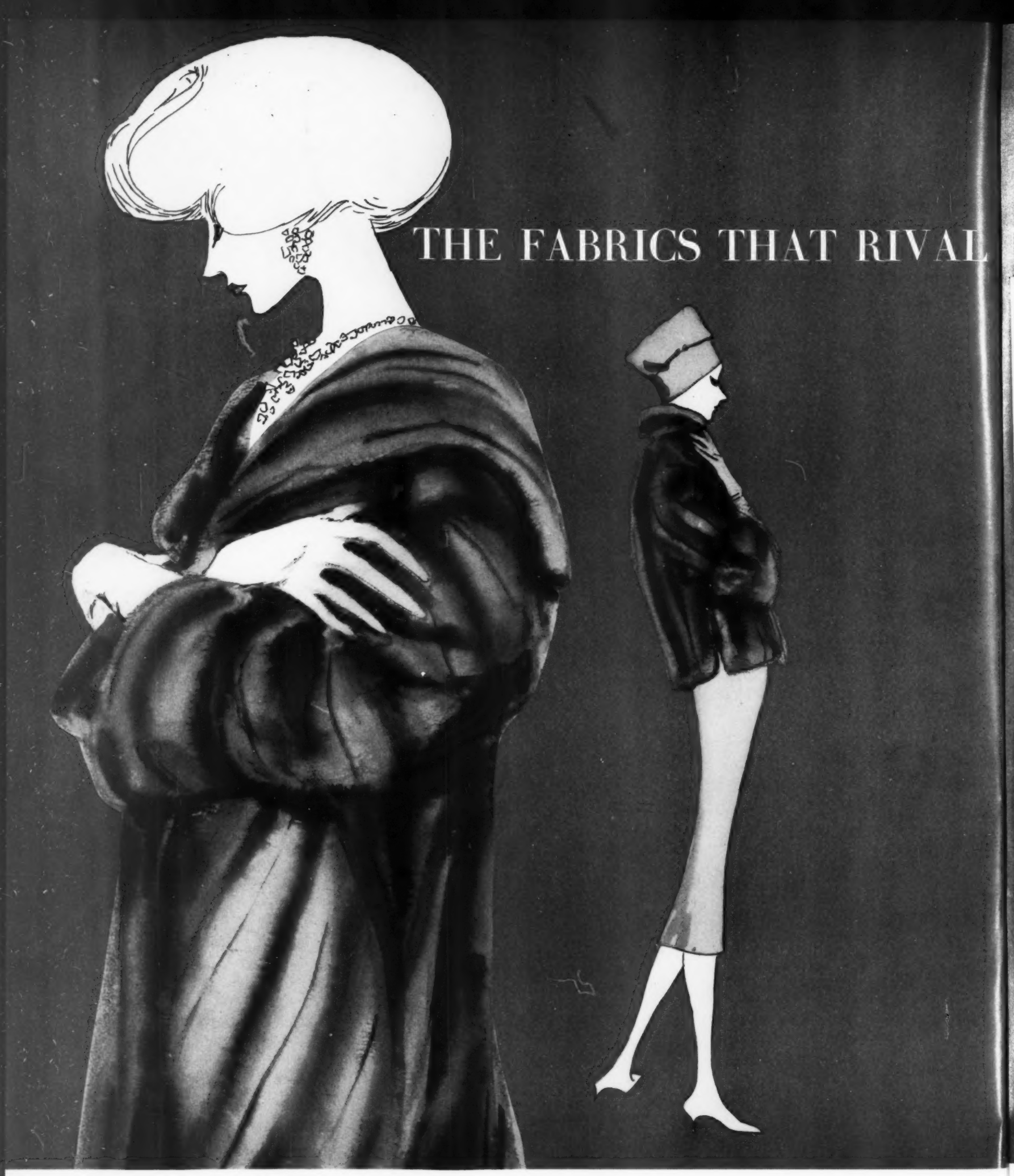
450 Seventh Avenue, New York, N.Y.

new sectional sofas by Kroehler

feature a fine Mooresville fabric woven with **JETSPUN** rayon

This smartly styled sofa ensemble can give your living room an exciting new look. Cleverly designed to look effective together or apart, these three pieces are Kroehler quality construction in off-the-floor design with legs attractively finished with brass ferrules. The handsome textured fabric is from the famous Mooresville Mills, woven with American Enka's solution-dyed rayon yarn. This means its beauty is colorfast...that it will last through years of happy living. 3-piece Smartset Group, in a variety of exciting new colors, approximately $339.50 as shown. Available at all authorized Kroehler dealers. • ***American Enka Corporation*** • 206 Madison Avenue, New York 16, N. Y.





princeton's

Mutation*

*Mutation T. M. Reg. © Princeton Knitting Mills, Inc. 1955



AL NATURE'S MOST PRECIOUS FURS

HOW TO BUY A WINTER COAT

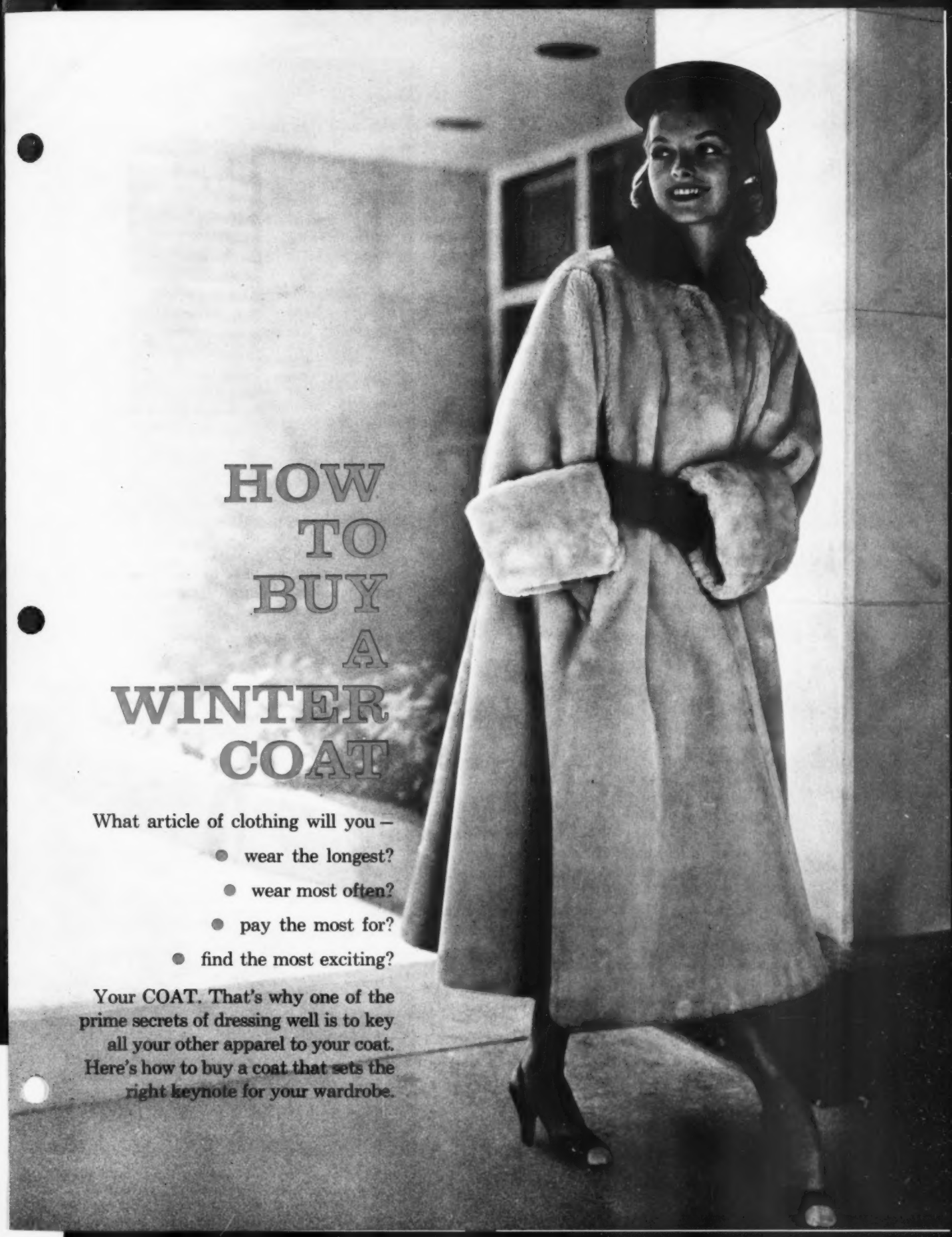
What article of clothing will you –

- wear the longest?
- wear most often?
- pay the most for?
- find the most exciting?

Your COAT. That's why one of the prime secrets of dressing well is to key all your other apparel to your coat. Here's how to buy a coat that sets the right keynote for your wardrobe.

rt of fashion.

a PRINCETON Fabric



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HOW TO BUY A WINTER COAT

Choose a style sufficiently basic so that it looks well with your school, your date, and your "Sunday best" costumes. Few of us can afford different coats for different kinds of occasions. That strictly sports coat is a love—but how will it look over a date dress? That strictly dress coat is a dream—but won't it look odd over school clothes?

Go easy when it comes to radical style features that quickly date a coat. Select something less expensive – accessories, for example – to indulge your fondness for the very different.

be bright about color

In a well-planned wardrobe, the colors of your dresses, suits and separates are all coordinated with the color of your coat. You will have more leeway for color combinations if you choose a coat in a basic color – beige, gray, blue, brown or black.

be silhouette conscious

Keep coordination in mind when it comes to silhouettes too. A coat with straight, slim lines goes beautifully with a sheath, but how will it look over a billowing skirt? A fitted coat and a princess dress are "naturals" together, but what happens to the lines of a fitted coat when you wear a boxy suit under it?

If you want both slim and bouffant silhouettes in your wardrobe, choose a coat with enough fullness to accommodate both. Check to see that the coat has an adequate overlap so that it does not gap when you walk or sit down.

think about wear

Will the coat keep its good looks through several seasons? The quality of the fabric has a lot to do with the answer.

A simple way to judge the quality of a pile fabric coat is by the density and feel of the pile. It should be compact, rich, and resilient. Low quality pile fabrics have poor cover and shaggy edges, and they feel lifeless. Let texture and appearance help you to assess fabric value.

The lining should be of closely woven material and have a pleat in the center back extending the full length of the coat to allow for give.

THE BIG COAT NEWS

Natural gas, salt and air. They are creating the the most exciting coat news of this season, just as they did last year. The reason? They are the raw ingredients used for making DYNEL – an acrylic fiber chemists will tell you is composed of 40% acrylonitrile and 60% vinyl chloride.

DYNEL is a textile fiber used in an amazing variety of ways. In smart suits . . . and tough work clothes. In beautiful dresses . . . and paint rollers. In "woolies" . . . and coats that have the luxury look of fur.

DYNEL is soft, warm, light in weight, strong, and highly resistant to chemicals and stains. It won't mildew. Moths shun it.

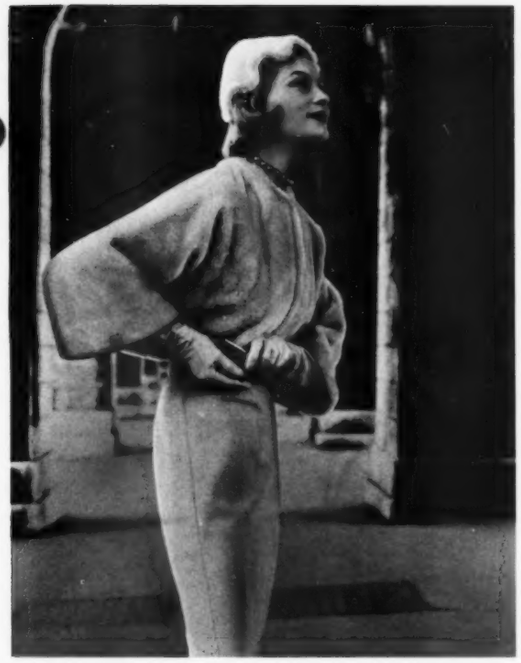
why DYNEL is making coat news

DYNEL, Union Carbide and Carbon's acrylic fiber, alone or combined with Orlon,* is being made into pile coats that look so much like fur they would confuse even a beaver. These coats have created a sensation in the feminine fashion world. Here's why –

- DYNEL and DYNEL-blend coats look just like fur—yet sell for less than a fourth the price.
- Are kitten soft – but give sturdy wear.
- Are toasty warm – but light in weight.
- Are mildewproof and mothproof – thus much easier to care for than fur.

Luxurious and practical at the same time, a DYNEL or DYNEL-blend coat is a "go-everywhere" coat. It will keep you warm at the football game. You will wear it proudly to the Prom.

*DuPont Trade Mark



Cone-shaped toque and bolero in a fur-like blend of DYNEL and Orlon. About $60, in natural, browns, grays, and charcoals.



Luxurious as fur, and warm as fur, but light as a feather on your shoulders. DYNEL makes it a universal charmer. About $100.



Casually cut topcoat in the important full-bodied family of browns. Enhances all complexions, and blends beautifully with beige-to-brown tones. About $90.



Petite DYNEL blend jacket sure to flatter the smaller figure. About $70, in all of the rich fur colors.

HOW TO CARE FOR YOUR COAT

DYNEL or DYNEL-blend coats can be successfully cleaned by the furrier method or by qualified dry cleaners.

If the coat is not too badly soiled you can "spot" it at home. Do it this way:

- Use a fur spot cleaner or a cleaning fluid made of carbon tetrachloride. Daub surface of pile lightly. Do not rub it. Use a clean section of the cloth as soon as one section is soiled. Daub in one direction only — down length of coat or sleeves, across width of cuffs.
- Hang to dry, then shake vigorously, holding coat by bottom edge.
- The pile may be brought up by brushing but do it carefully with a soft brush, preferably a roller type.

Here are some rules that will help preserve the beauty of any coat:

1. Don't let it become too soiled before having it cleaned. A scarf protects the collar against soil.

2. Hang the coat up promptly when you take it off. Use a padded or broad coat hanger, not a thin wire one that may distort the shape of the shoulders. Don't jam the coat among other clothes. Give it space on either side so it can "breathe."

3. Don't place heavy or bulky objects in the pockets.

4. If the coat gets wet, don't dry it near a hot radiator.

5. Protect your coat as much as possible from friction. Don't carry a handbag or books under your arm so that they rub against the side of the coat.



Here are some of the brand names used for the fur-like fabrics, each with its own distinctive character, from which DYNEL and DYNEL-blend coats are made.

"Borgana", knitted by George W. Borg Corporation
DYNEL and Orlon face . . . ALL-DYNEL backing

"Cloud No. 9", woven by Collins & Aikman
DYNEL and Orlon face . . . All-cotton backing

"Mutation" and "Ollegro", knitted by Princeton Knitting Mills
DYNEL and Orlon face . . . ALL-DYNEL backing

"Andante", knitted by Princeton Knitting Mills
ALL-DYNEL face . . . ALL-DYNEL backing

"Glenara", knitted by Glenoit Mills
DYNEL and Orlon face . . . ALL-DYNEL backing

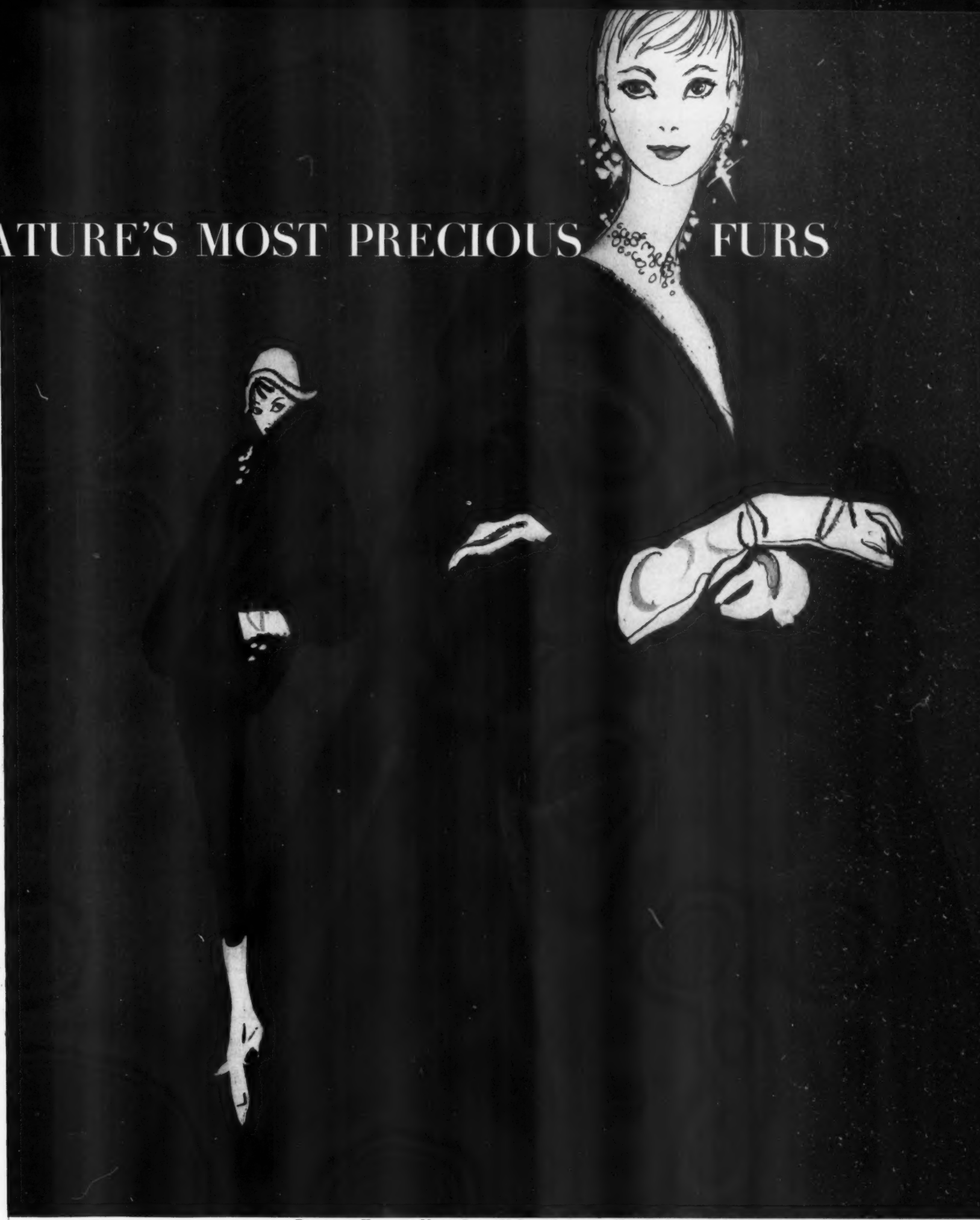
"Furalla", knitted by Alamac Knitting Mills
DYNEL and Orlon face . . . ALL-DYNEL backing

"Fleur de Lis", woven by La France Industries
DYNEL and Orlon face . . . All-cotton backing

"Belfiore", knitted by Malden Mills
DYNEL and Orlon face . . . ALL-DYNEL backing

Courtesy of Textile Fibers Department, Carbide and Carbon Chemicals Company
A Division of Union Carbide and Carbon Corporation

NATURE'S MOST PRECIOUS FURS

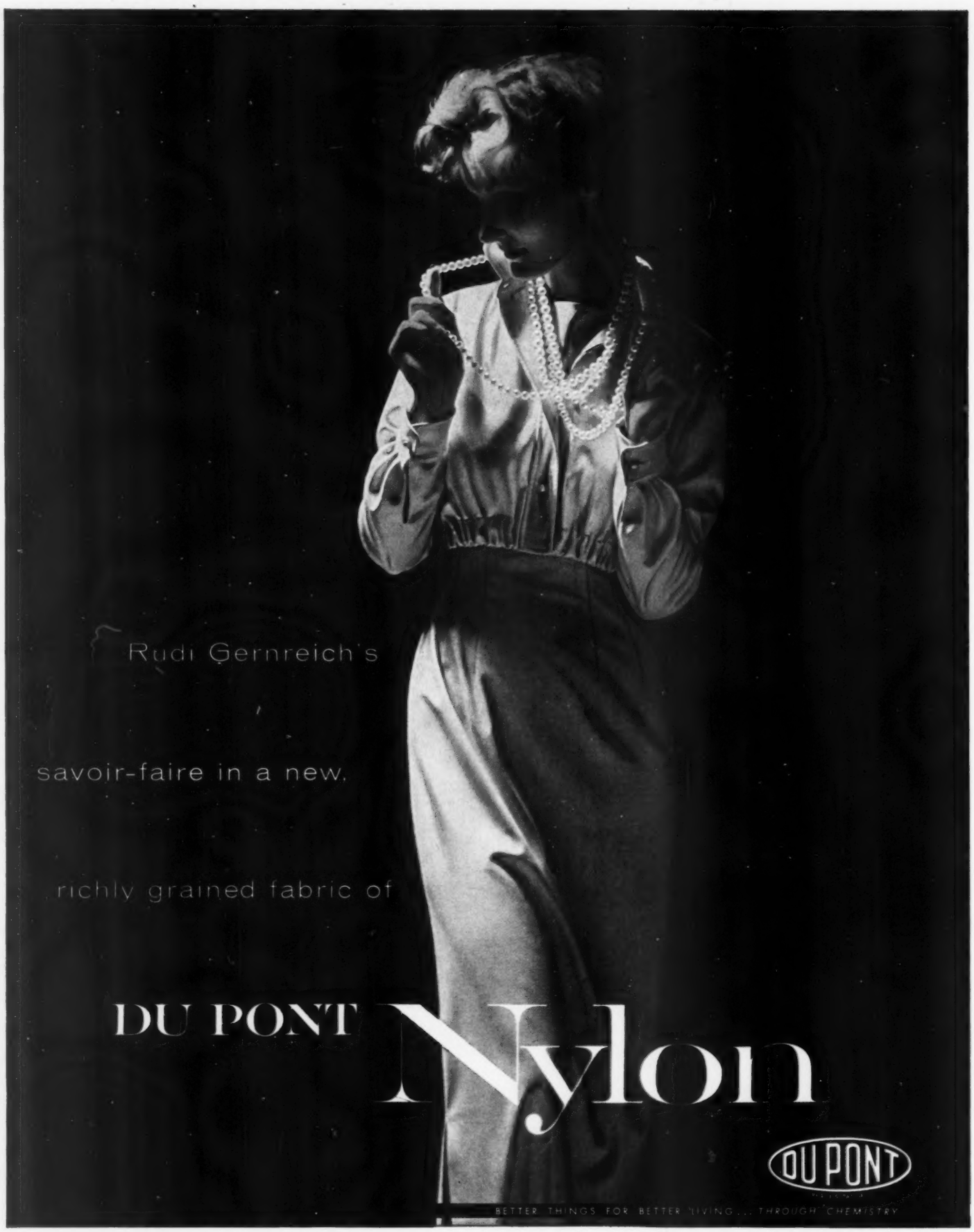


PRINCETON KNITTING MILLS, INC., 450 Seventh Avenue, New York 1, N. Y. Reaches the heart of fashion.

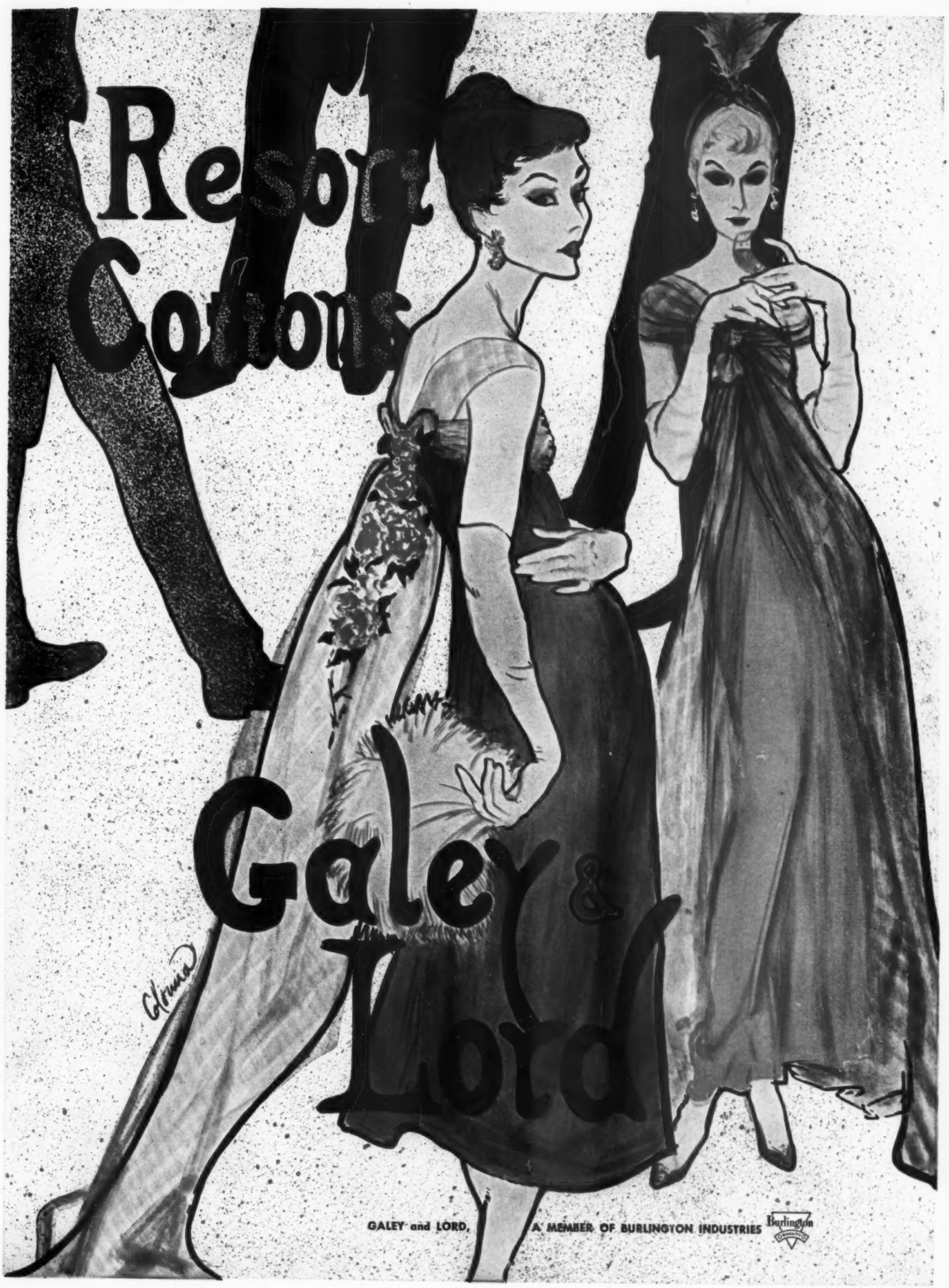
princeton's O'llegro*

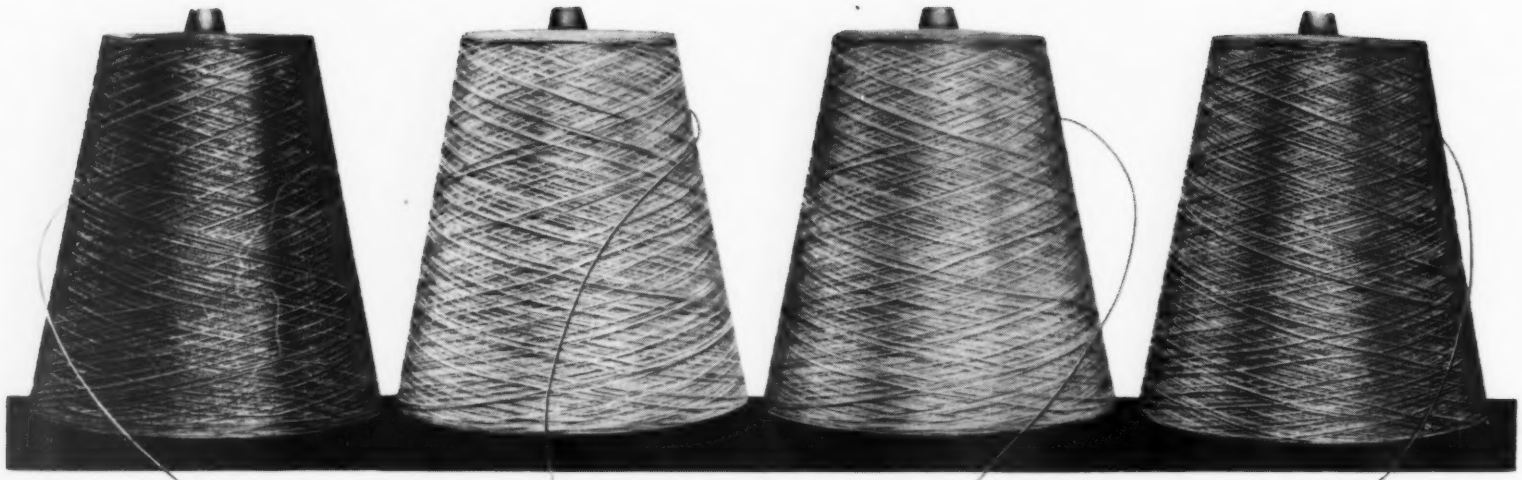
*Ollegro T. M. Reg. Princeton Knitting Mills, Inc.

a PRINCETON Fabric



HANDSOME IS AS HANDSOME DOES . . . ANOTHER DEPARTURE IN FABRIC OF DU PONT NYLON . . . AN INCREDIBLY LUXURIOUS, RICHLY GRAINED FABRIC WHICH RESISTS RUMPLING, WRINKLING, WILL PRACTICALLY STAY NEAT BY ITSELF. NO WONDER MANY MORE DESIGNERS, BUYERS AND CUSTOMERS ARE DELIGHTED WITH THE INTRIGUING CUSTOMER POSSIBILITIES, THE RELIABLY EASY-CARE QUALITIES INHERENT IN DU PONT MODERN-LIVING FIBERS. **"ORLON" IS DU PONT'S REGISTERED TRADEMARK FOR ITS ACRYLIC FIBER. ***"DACRON" IS DU PONT'S REGISTERED TRADEMARK FOR ITS POLYESTER FIBER. DU PONT MAKES FIBERS, DOES NOT MAKE THE FABRIC OR BLOUSE SHOWN HERE.


Resort
Cottons
Galey & Lord
GALEY and LORD, A MEMBER OF BURLINGTON INDUSTRIES
Burlington



EVEN A DIAMOND



Even a diamond needs a polish to add true beauty to its innate value. Similarly, S C T Mercerized Weaving Yarns enhance fabrics with a glowing lustre while adding cotton's known virtues of strength and comfort. Lustrous enough to use in both warp and filler . . . winning combination with silk or synthetics. S C T's highest standards of quality control in spinning, even Mercerizing end to end, level dyeing, warp or package bleaching assure smooth running and uniformly good results.

Fashion's Polished Gem of Cotton Weaving Yarns

S C T

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2524 N. Broad St., Philadelphia 32, Pa. • Guilford Bldg., Greensboro, N.C. • Reading, Pa. • First Nat'l Bank Bldg., Utica, N.Y.
REPRESENTATIVES IN CANADA, CENTRAL AND SOUTH AMERICAN COUNTRIES

bright new fashion note for men

the unglazed but lustrous look in EVERGLAZE® fabrics and EVERGLAZE® MINICARE® fabrics



A

You've noticed it, of course—the glowing new look that men's and boys' fashions have taken on this season . . . the unglazed lustrous look. Nowhere is this look more noteworthy than in the richly subdued "Everglaze" and "Everglaze" "Minicare" cottons and rayons so much in evidence on the male fashion scene today. Herewith six shining examples of the bright new "Everglaze" and "Everglaze" "Minicare" fabrics and fashions . . .



B

resist creases • wash easily
need little or no ironing
won't shrink or stretch out of shape



C



D

A Bardon of Hollywood uses a striped "Everglaze" "Minicare" fabric by Stoffel & Co., Inc., for this inner-outer shirt

B Barney Beller used "Everglaze" cotton satin by George Wood Sons & Co., for this "man-fashioned in California" shirt

C Thomas Shirt took inspiration for this "Everglaze" shirt from Folker Fabrics' striped cotton satin with a hand-painted look

D Hollywood Rambler put lustrous "Everglaze" cotton by Stein-Tex to excellent use in this handsome, carefree sport shirt

E Don Juan Jr. picked "Everglaze" cotton satin by Maidstone in an allover print for this classic buttoned-down boys' shirt

F Don Rancho tailors these carefree shirts in Safari, an "Everglaze" "Minicare" wash-and-wear fabric by Springs Mills



E



F

"EVERGLAZE" MARKETING DIVISION

P. O. Box 189, Wilmington 99, Delaware

International merchandising of trademarked products:

EVERGLAZE® • EVERGLAZE® MINICARE® • TUTORED® • STAZENU® • BAN-LON®

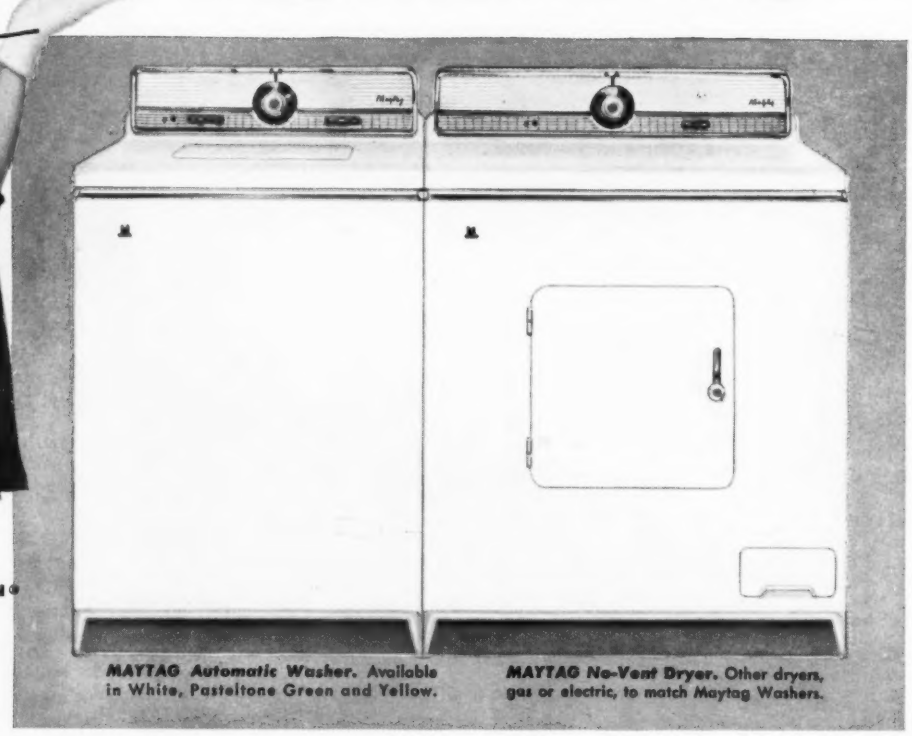
The "Everglaze" Marketing Division supervises the international merchandising of the trademark products of Joseph Bancroft & Sons Co. Bancroft grants the use of its trademarks on fibers, yarns, fabrics, articles and garments which meet its prescribed and tested standards of quality. In foreign countries, the trademarks are identified by "Trademark" and not ® as in the United States.

No other automatic washes modern fabrics so safely...

MAYTAG

All-Fabric AUTOMATIC





MAYTAG *Automatic Washer.* Available in White, Pasteltone Green and Yellow.

MAYTAG *No-Vent* **Dryer.** Other dryers, gas or electric, to match Maytag Washers.

Free! Fabric Wheel!
Simply dial the fabric for washing and drying instructions. Ask your Maytag dealer for it.

Only Maytag duplicates hand washing with choice of wash and rinse speeds– water levels–temperatures, even cold water!

It's here—the new MAYTAG *All-Fabric* Automatic—designed to wash even your most delicate things as carefully as you would by hand!

Merely push the "Modern Fabrics" button and you automatically get a gentle slower-speed wash and spin. Set the Automatic Water Level Control to "low" and get the small amount of water you need for small loads. You can set your wash time for as little as one minute, too.

New "Cold Water" feature

In addition, Maytag gives you new push-button *cold water wash and rinse* to clean your more delicate fabrics safely! Naturally, Maytag does its usual unequalled cleaning job on everyday things, too, with hot and warm water.

See this remarkable new *All-Fabric* MAYTAG at your dealer's now. It's built by the people who have made more washers than any other brand in the world!

The Maytag Company, Newton, Iowa.

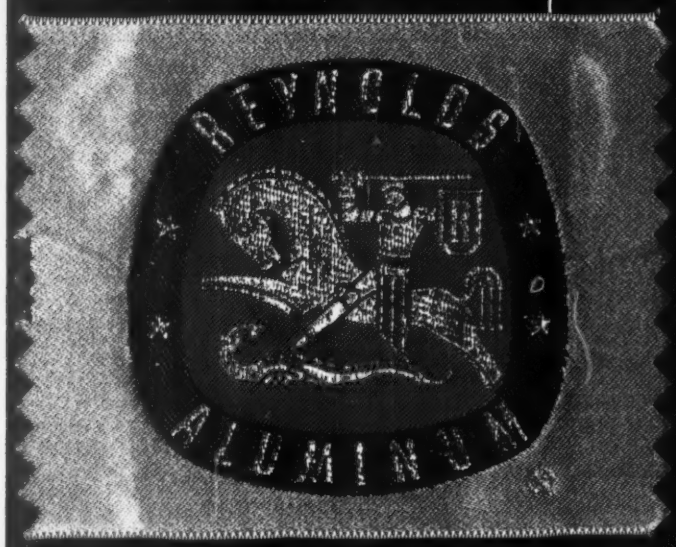
Maytag products are sold and serviced in Canada and throughout the world.

SCANDIA



SCANDIA®
COTTONS BY Fuller Fabrics

"The Glamour Gleam in Fine Fabrics"... Woven Into One Of The World's Great Industrial Trademarks!





The Reynolds Metals Company trademark has long been recognized for success in many fields...including Aluminum Yarn. Reynolds was one of the first to use Dupont Mylar*. And Reynolds Aluminum Yarn with Mylar is outstanding.

Important, too, are the vast resources of one of the world's major aluminum producers. This bigness permits Reynolds present large-scale production. Potential yarn capacity is practically unlimited.

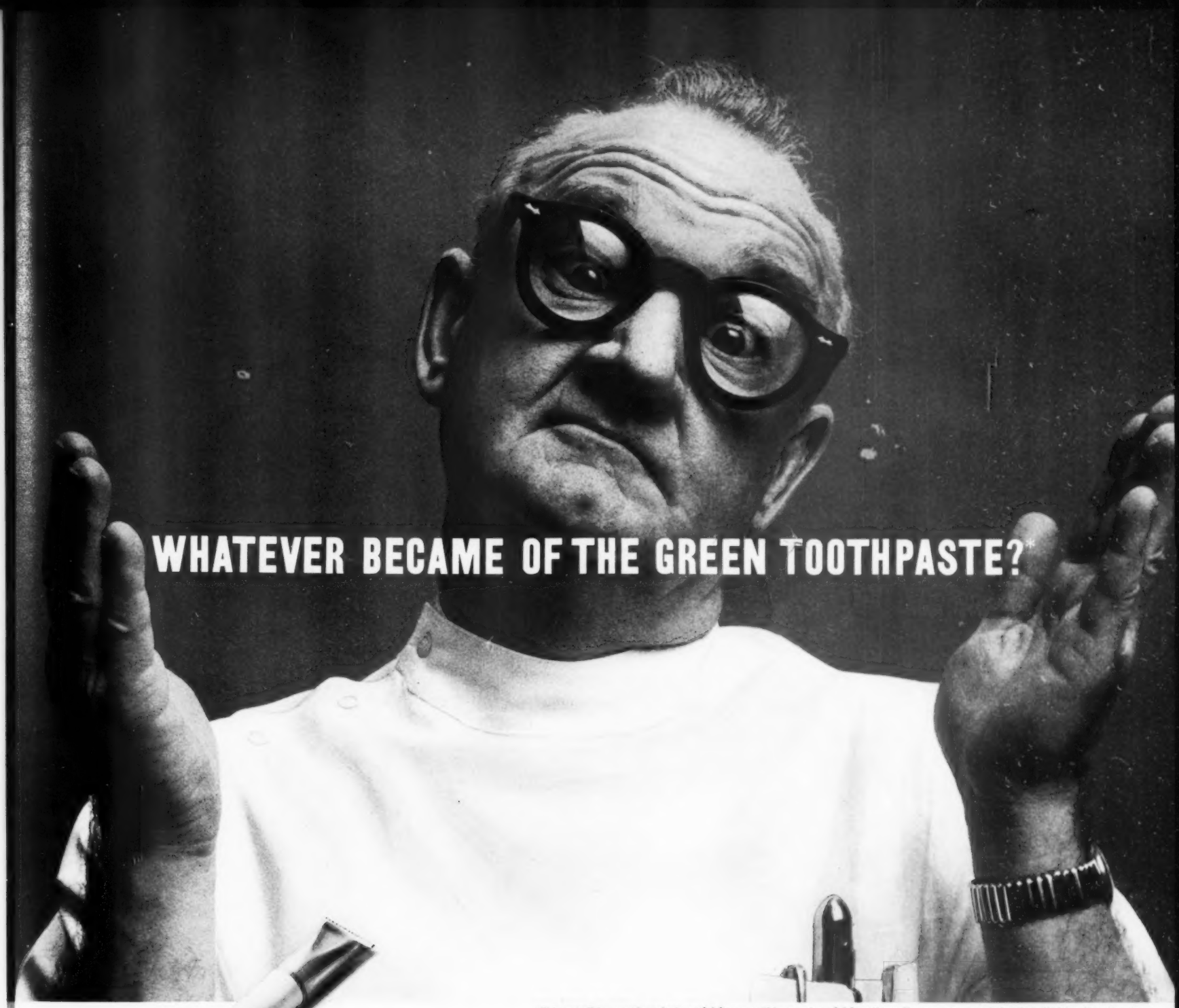
Reynolds has yarn types to meet all technical requirements...in colors and styles to suit any design concept. Call the nearest Reynolds Sales Office (all principal cities). Or write to **Reynolds Metals Company,** General Sales Office, Louisville 1, Ky. Canadian representative: Yarntex Corp., Ltd., Montreal.

**DuPont Trade Mark for its Polyester Film*

Reynolds Aluminum Yarn

...by the makers of Reynolds Wrap

See "CIRCUS BOY", Reynolds dramatic adventure series, Sundays, NBC TV Network



*Chlorophyll is a good product, useful for some things, not useful for others. It was over promoted and applied to altogether too many products for which it was not suited. The effect was almost to kill it for products in which it belonged.....New York Times

Every so often a Big Idea hits an industry, stands it on its head... then makes a quiet exit, leaving little behind except some cut-price merchandise. You remember, of course, the green toothpaste... which was to make all other toothpastes obsolete!

Textile finishing gets its "9-day wonders," too. That's why we've hesitated to ballyhoo the obvious merits of our Cyana Silicone Finish... a new quality-controlled, tagged finish. It's *not* because we don't believe in this fine product, but because we don't want to see it used indiscriminately... in a wave of "silicon-thusiasm." Many leading mills are today specifying Cyana Silicone Finish to meet certain basic requirements, in certain applications in the textile industry... notably for high initial spray ratings on synthetics.

It's our feeling that public confidence in *all* textile finishes is seriously damaged if any single finish is over promoted or applied to fabrics and end uses for which it isn't suited. *There is no one do-all, cure-all, end-all finish!*

We admit to being in an exceptionally fortunate position to make *objective recommendations* on finishes. Cyanamid's family of textile resins is one of the largest in the business... includes melamines, thermoplastics, as well as silicones. We are under no constraint to sell or stampede anybody into using or promoting one resin for all situations.

If silicone is indicated for your finish, we are happy to tell you that Cyana Silicone Finish is unexcelled. If you're in doubt, or if you "just want a finish to build repeat business," we suggest you consult Cyanamid. No obligation, of course.



CYANAMID

AMERICAN CYANAMID COMPANY
TEXTILE RESIN DEPARTMENT

BOUND BROOK
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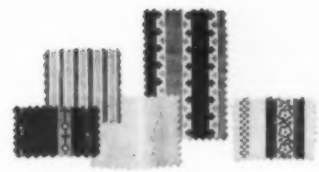
Sporting tradition
John Weitz . . . page 45

Portfolio of inspiration . . . page 25

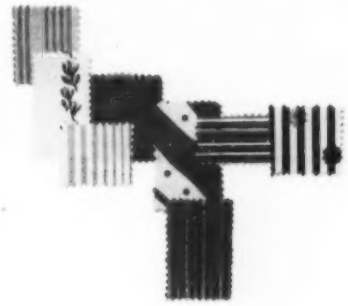


Haute couture tradition — Scaasi . . . page 50





Newsmaking summer fabrics . . . page 33



AU

NO. 39



Opportunities in decorative fabrics . . . page 66



New ideas from a nostalgic source . . . page 59

FROM THE EDITOR'S DESK

VANISHING FABRIC BOUNDARIES

After centuries of slow textile growth we have suddenly emerged into an era of incredible change. No longer can fabrics be classified by season or use, fiber or weight, with a stern injunction to obey the boundary lines.

Breakfast in sun-soaked New York and, the same day, cocktails in a chilly San Francisco — or leave a wintry Detroit and swim the same afternoon in Miami. . . .

This new, high-powered, mobile America gives the textile industry many problems.

What are the textiles this changing America needs?

AFTER THE WAR

Following the stringency of war, new ideas bloomed and new textiles began to make their appearance. A demand for year-round fabrics developed. Blends, perfectly attuned to these changing times, offered one answer. Pure silk took new weaves to provide another. Cotton displayed its spectacular versatility in transitional types. Wools, woven in thinner and lighter weights, asserted their place as an all-year commodity. Man-made fibers seized the telescoped sense of space and time as their opportunity to show how much they could contribute to an era of season-spanning wear.

THE IMPACT OF TRAVEL

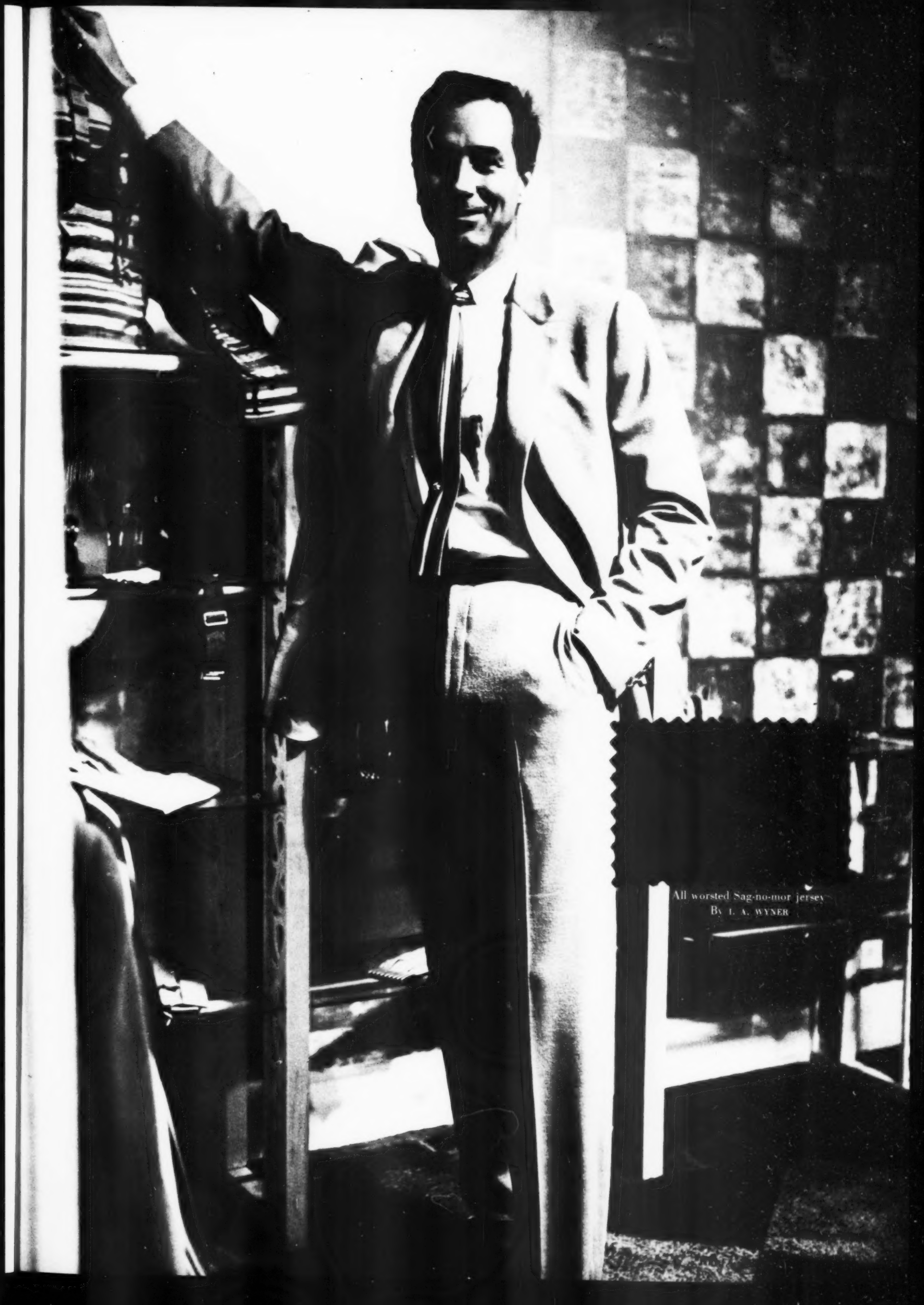
The impact of travel on fabrics has only begun to be felt. Airlines have brought the cost of intercontinental travel within the reach of lower incomes and an increasing number of Americans are going abroad. Within the nation lower fares to favorite holiday spots are swelling the numbers of vacationing air travelers. Road-building programs, sponsored by both Federal and state agencies, promise to span the country with a network of roads designed for fast-moving, long-distance traffic.

Another significant factor is the changing vacation pattern. Once all vacations — except of the well-to-do — were taken in the summer. Now many firms spread vacations throughout the year, so that in winter ski enthusiasts head for the snow country, the sun-loving crowd makes for Florida or the Caribbean.

America is on the move. The fashion-fabric industry has to act quickly to meet the needs of space-defying custom-

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Opposite: Striking example of vanishing fabric boundaries is a knit suit tailored by Alexander Shields, who models it here.
For story, see page 72 . . .


All worsted Sag-no-mor jersey
By I. A. WYNER

ers with fabrics that can scoff at boundary lines.

MAN-MADE CLIMATE

Important as travel is in the creation of a demand for new textile thinking, it is by no means the only factor. The man-made climate is responsible for many changed and changing textile concepts. Only in the last decades have abundant fuel and scientifically designed equipment enabled us to create temperatures of our own choosing.

This accomplishment eliminated the need for knitting heavy woolen underwear, dramatically lightened the weight of dress woolens and made practical the year-round use of silk, man-made fibers and cotton. The moment that women — and, to a lesser degree, men — experienced the comfort and fashion appeal of these new lighter weight fabrics, a new trend was launched.

The full impact of air conditioning is only beginning to hit the textile industry. Installed in theatres in the twenties, in stores in the thirties, it has now spread to the factory and office. But home air conditioning is beginning to move by giant leaps.

> ***An example of creative fabric thinking for climate:*** Since the great outdoors refused to cooperate with temperature control, man's ingenuity finally provided an answer in lightweight, Milium-insulated linings, an entirely new solution to the problem. Nothing was lost in beauty and fashion appeal; much was gained by revolutionizing our idea of a correct coating weight.

The boundaries that confined a fiber to a particular season have finally been erased. More and more the demand is for fabrics to go around the calendar and, just as important, fabrics that can adjust to varying degrees of temperature around the clock.

A FASHION REVOLUTION

Fashion itself has been a great force in rubbing out boundary lines between fabrics. The emergence of the designer to a commanding position has led to a more imaginative approach to design and a less inhibited use of fabrics. What were formerly considered exclusively suiting weights are now used for coats and even for dresses. Lighter coatings are now seen as suits; dress weights, which were once just that, today are used for suits.
In another phase, this revolution has brought about the crossing of fabric boundaries around the men's market. Menswear fabrics are now frequently appropriated for women's wear and men's designers have been quick to retaliate by snatching silks from the women's market for men's suits, or filching the brightest prints and patterns for men's sport shirts. And versatile cottons — even in the same colors and patterns — have succeeded equally well for both men's and women's wear.

> ***An example of the creative interchange of fabrics:*** On the preceding page we show a man's wool jersey suit, certainly a startling innovation. This new role for jersey comes close on the heels of its spread into cotton for women's all-season wear.

The modern free approach to designing has brought about the destruction of fabric barriers. Denims, galateas and other utility fabrics appear in the smartest circles and crop up in the lines of name designers. Corduroy, once a fabric left strictly to children, boys and men, gets around in fashion. The new thin, light weights are used for dresses and blouses; the new patterned types for sportswear; the handsome velvety wide-wales for coats. What is more this versatile fabric, like many others, crosses over into the decorative field with assurance.

And there is the elimination of boundaries between home furnishings and fashion fabrics. In these times designers choose a drapery fabric for a dress, an upholstery fabric for a coat. Just as often, decorators reach out and select an industrial fabric for a special effect.

GOLDEN HARVESTS

The textile industry is face to face with a new era in fabrics. It is a period when fashion designers and decorators refuse to be hemmed in by tradition, when the public is ready to reward richly those who understand their way of life. It gives an inspiring challenge to yarn companies, mills and converters, to think creatively about their markets and to offer fashion and interior designers new fabric inspiration which will spark tomorrow's ideas and directions. For the consumer, whose varying needs will be met with clothes that pay no heed to the calendar's tyranny, it can be the beginning of a golden age.

In the following pages are presented developments in many areas which can help those in the industry, through a swiftly moving interchange of new ideas, to meet this challenge. There is no aspect of textiles today where creativeness is not vital and where the impact of outside ideas is not rewarding. For those who are willing to move ahead into the contemporary textile evolution there are golden harvests in sales to be gathered in ■

AMERICAN FABRICS PRESENTS

A NEW CREATIVE THEME:

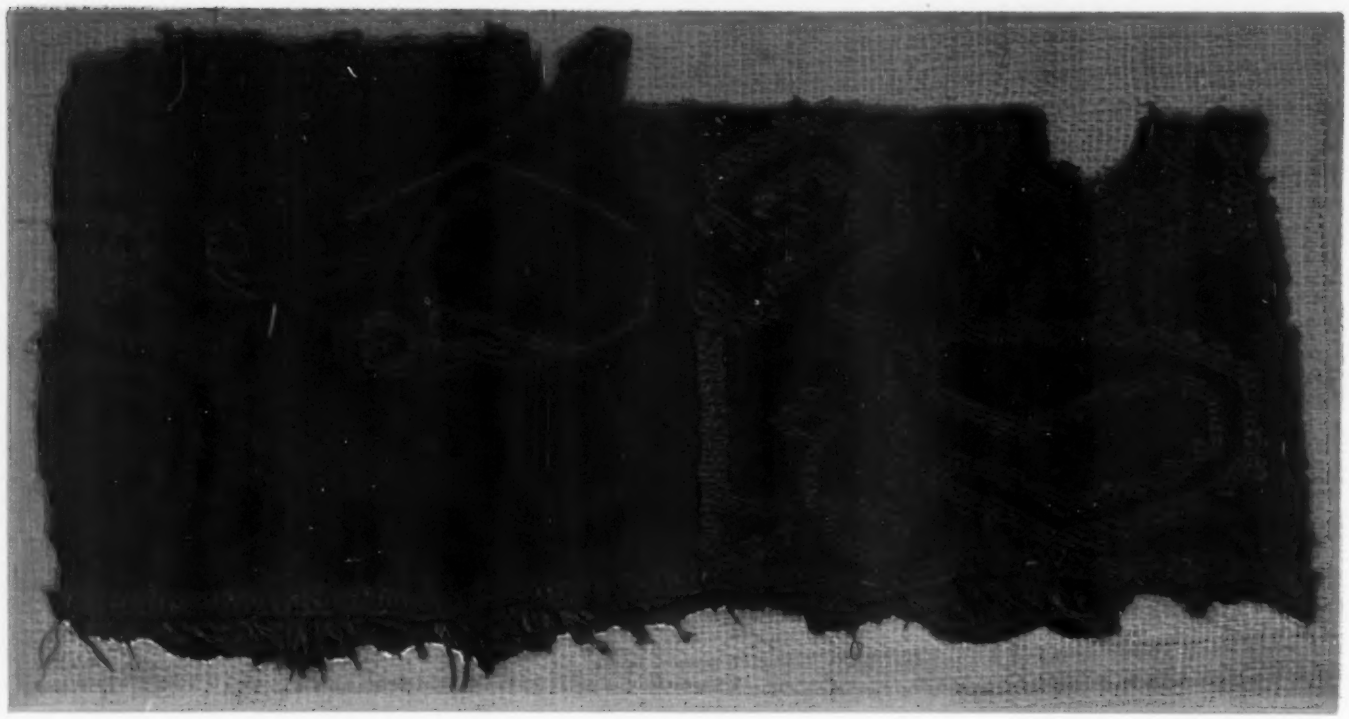
PRE-INCA ART



Tapestry of many-colored cats, no two of which are alike in color pattern. Woven with alpaca filling on cotton warp.

Seattle Art Museum

Poncho border carries a succession of whimsical creatures boldly embroidered on a typical brick-red background.



Kanegafuchi Spinning Company

PRE-INCA ART

Textiles of the pre-Inca Civilization, by Itoji Muto

It is important for the textile industries of every country to create a greater demand for textiles of all types. This can be done only by introducing new ideas and new themes that will intrigue and attract the ultimate consumer. In order to move toward this goal it is essential not only to create new ideas but also to assimilate various cultures of the past and adapt them to the mood of our modern era.

With this in mind, we bring to the attention of designers of modern fabrics the ancient textiles of the civilizations of the Central Andes which flourished in the pre-Inca period.

Hardly any documentary record of these civilizations is now available. Our knowledge is based on ancient legends, vestiges and relics. Nevertheless, we know that peoples of a high cultural level prospered in the region of the Central Andes before the establishment of the Inca Empire. Excavations indicate the period may have been as early as 1200 B.C., and the area concerned spread from the coast and mountains of Peru to the highlands of Bolivia.

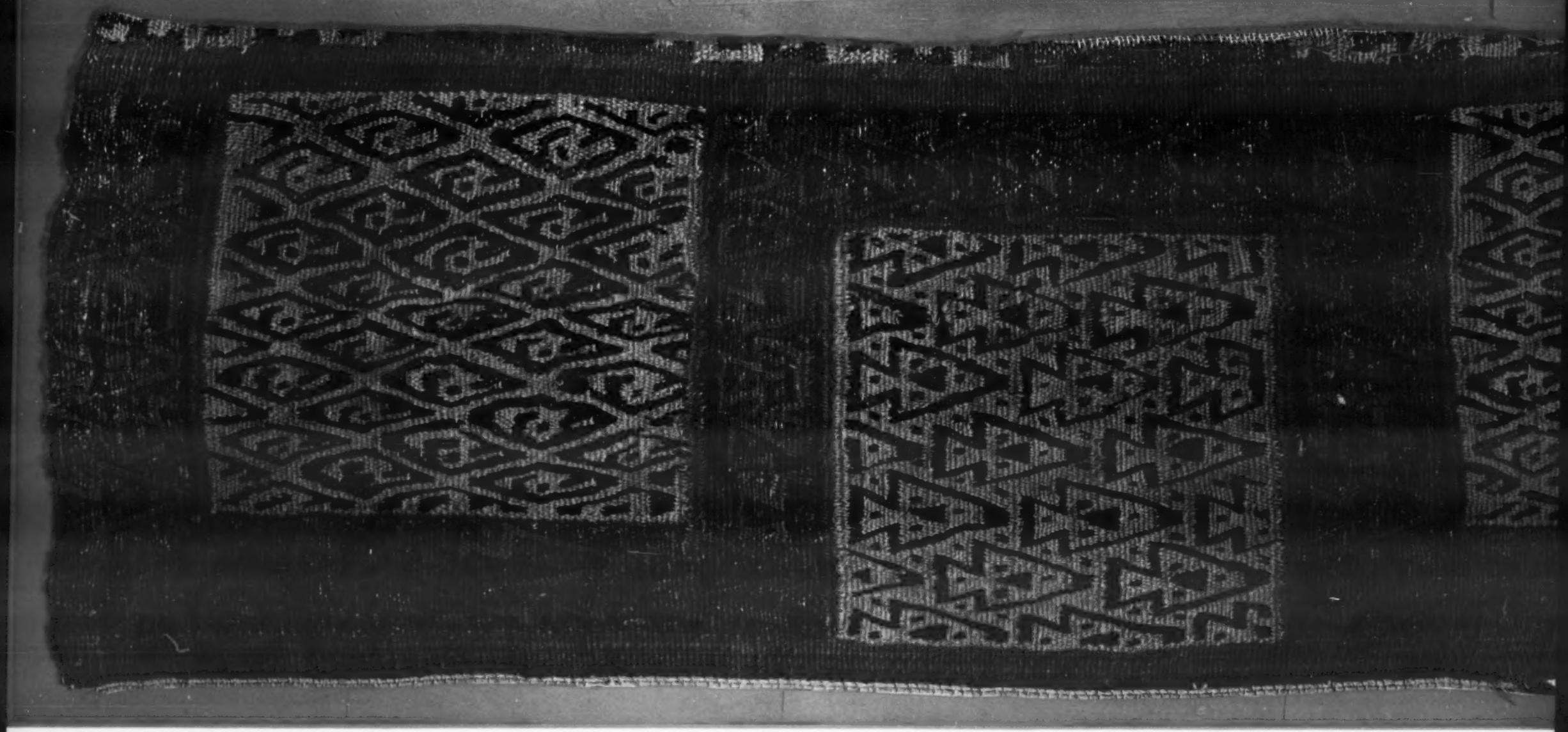
There are a number of interesting features which are characteristic of the pre-Inca civilizations. In architecture, for example, they carved huge stones out of the mountains and fitted them with great precision to build tremendous structures. Their utensils were made of brightly pigmented earthenware, of many imaginative shapes in all sizes.

In textiles, these peoples excelled. With cotton, alpaca and llama wool, inner fibers of the maguey and other fibers, they made elaborately embroidered cloths and beautiful brocades. The yarns in these textiles were very fine. Some fabrics were embroidered, others interwoven with feathers, still others were decorated with metals and shells. The range of colors is amazingly wide. Designs are usually geometric, a style which is a special characteristic of the civilization.

The pre-Inca textiles in the Kanegafuchi Collection number three hundred and fifty pieces. When we exhibited them in the Tokyo Art Museum they were received with keen attention. At about the same time, we made and published color plates of our Coptic textile collection from ancient Egypt. Encouraged by the favorable response which these color reproductions aroused from people in all parts of the world, our company has now made similar facsimiles of the ancient South American textiles. Several reproductions of the original fabrics appear on these pages. It is our hope that they will serve as creative inspiration for textile and fashion designers everywhere.

Itoji Muto, president of the Kanegafuchi Spinning Company, Ltd., is particularly proud of the company's extensive collection of pre-Inca textiles. An executive who has always encouraged creativity in textiles, Mr. Muto here presents a few of these treasures to readers of American Fabrics as a new fabric-design inspiration. On following pages American Fabrics comments on pre-Inca textiles.

Kanegafuchi Spinning Company



Tapestry woven in llama wool in arrow pattern. Variety and richness of color, free yet controlled handling of motifs, is strikingly in tune with modern design.



University Museum, University of Pennsylvania

Intricately patterned clay jar has over-all pattern of batik quality. Strong line treatment makes for powerful, crowded effect. Closer view indicates a battle between sun god and bird demon figure.

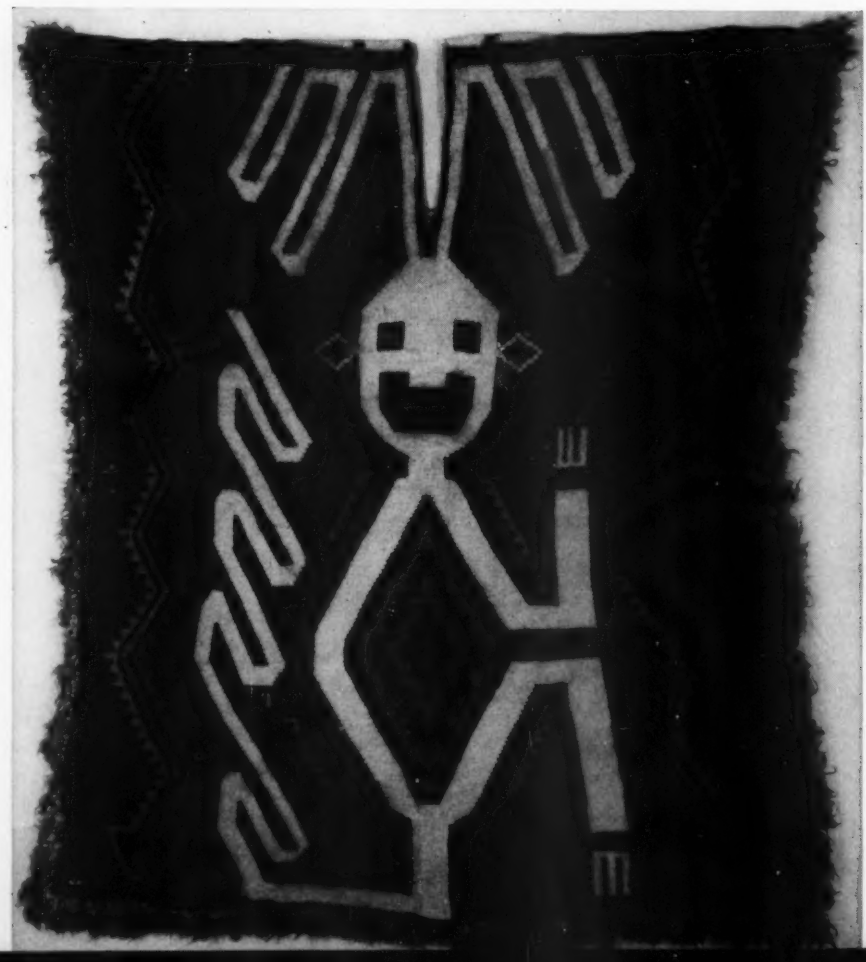


PRE-INCA ART... *continued*

Many designers today are becoming bored by the unadorned line. To them, to all modernists sated with the cult of simplicity, we present the intricate, explosively colored textiles of the pre-Inca era.

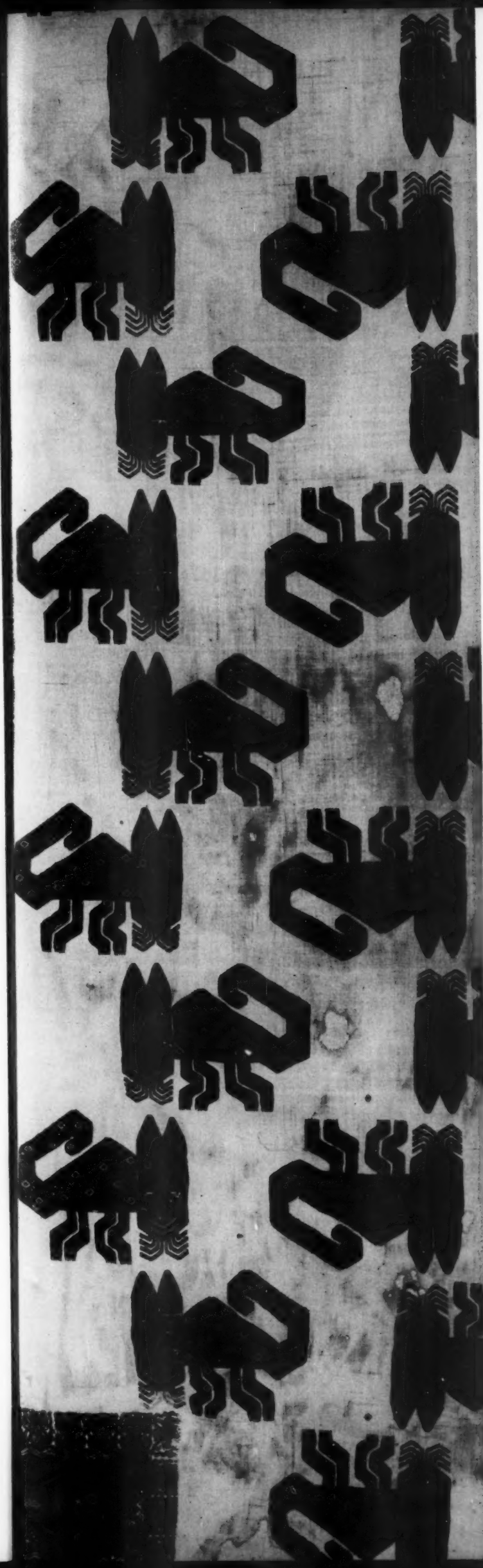
Only a people of high good humor could have conceived these designs; only a people with a tradition of precise craftsmanship could have turned them into these incredibly complex textiles.

The pre-Inca was an abstractionist. He saw his world in squares and triangles. Cats, birds, gods and men are transformed into geometric motifs, then further squared into checkerboard patterns. In spite of all this stylization, the pulse of life always beats here. What zany personalities these recognizable cats still have! One mantle may hold only one cat, shown twenty times over — but he is



The Cleveland Museum of Art, Mrs. R. Henry Norweb Collection

Bold, simple figure reflects a primitive love of color but a sophisticated sense of design. It has much to say to modern designers striving toward identical goals.



Only one delightful red cat with two facial expressions is embroidered on this white mantle. By repeating it in reverse, upside down, and aligning it vertically and horizontally, a richly diversified pattern was created.

Peabody Museum, Harvard University





Warrior battles jaguar on stirrup-spout jar. Fluid line and dot design, seen in detail, conveys ferocity of battle. Solid areas of color contrast sharply with light lines for pattern excitement.

Courtesy the Art Institute of Chicago



Over-all tapestry design is dominated by large eight-pointed star motifs. Despite repetition, each motif has its own individuality in color and design rendering.

Opposite page. Checkerboard arrangement artfully combines brown, orange, green, black and red in a poncho woven with llama wool.

PRE-INCA ART

. . . continued

no mere repetition of himself. In his many different coats, whether he is upside down, looking right or left, he is a cat of many characters, many colors.

Color is the enlivening element. It was always brilliant, glowing, applied with a lavish hand. One or two motifs would suffice for a pre-Inca pattern, but it took many colors to make a finished fabric. The more complex the pattern, the more color. In one mantle, 190 different hues were counted.

The whole approach is gayer, less forced than that of the Incas. The pre-Inca had greater originality of design, was more joyous in his use of materials. It pleased him to cut his motifs apart, pick out only essential pieces, combine them again in a new pattern.

The Incas learned all this from their canny ancestor, and copied. And today, some 3000 years after the fact, there is an abundance of inspiration left over for the contemporary designer■



Kanegafuchi Spinning Company



Gold nose ornament, four inches in height, makes ingenious decorative use of its unique shape. Serpents are sections that rest within the nostrils.

Collection: Mr. and Mrs. René d'Harnoncourt

Detail of a tapestry-woven poncho made by the Tiahuanaco of Peru is jammed with original design ideas. Just one of the multiple motifs here could be the basis of a strikingly modern fabric print.



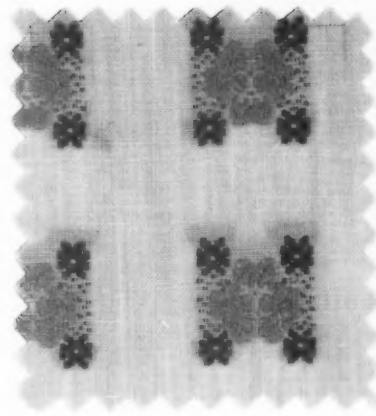
PRE-INCA ART... *continued*



Clay bottle shaped like a man is clothed in brilliantly painted mantle and poncho. Mantle decoration of crosses and dots and the stripe arrangement are astonishingly contemporary in feeling.

Courtesy the Art Institue of Chicago

Romantic mood is expressed in a very feminine embroidered cotton in one of the most important colors of the year.
HOPE SKILLMAN



SUMMER FABRICS REFLECT NEW FASHION MOOD

It may take several seasons to crystallize, but the change which is taking place in the fabric and fashion picture is well under way. The sheath has been liberated, the hemline lengthened and the smooth sleek silhouette is being replaced by a softer, more feminine contour — achieved by softer fabrics and the manipulation of these fabrics into tucks, folds, pleats, and with blousing and draping. Designers stand ready to plot new courses. How far will they venture on this running tide? From what sources will they seek their inspiration? Among many unanswerable questions, one thing is certain: a *mood* rather than a *period* is taking hold.

It is a nostalgic, sentimental mood that casts a reflective glance at some past era when women seemed more fragile and more feminine. Such being the case, something close to a romantic revival being under way, we may expect fashions to be elegantly or casually feminine and quite relaxed in feeling. In keeping with the new fashion mood is a great diversity of interesting and beautiful summer fabrics which offer many possibilities for interpreting the new silhouette.

Color Trends

Monochromatic treatment — tone on tone
Closely harmonizing colors
White — important ground color
White on white
Lilac to amethyst
Mauve to shocking pink
Coral to nasturtium
Aqua rather than turquoise
Grayed greens
Grass greens
Clear blues
Yellow
Silvery grey
Clear tans



Washable nylon georgette made with patented construction has fashion plus durability. From
WILLIAM SKINNER

SUMMER FABRICS... *continued*

Topping the list of important summer fabrics
are the sheers and semi-sheers. Of these, chiffons and georgettes
are by far the most significant. Current demand for
these fabrics is reaching new peaks and continues to increase.

A large number of fabrics in this group
make news because of the presence of man-made fibers.
A recently introduced washable nylon
georgette of patented construction is an outstanding example.
Dacron chiffon is another important arrival.
Acetate is used with Taslan textured nylon to provide
the ground fabric for a floral print in a semi-sheer.
Nylon combines with Taslan for a semi-opaque fabric that drapes w
Very sheer all-nylon fabrics prove
highly suitable for delicate summer prints.

SHEERS AND

Easy-care Dacron chiffon holds permanent pleats through washing. For dresses, sportswear.
COHAMA

Other classic sheers of note are lawns, voiles,
dotted Swiss, cotton chiffon and a lightweight cotton crepe.
An interesting treatment is
a ribbon weave utilizing cotton and silk yarns
to achieve an alternating opaque and transparent effect.

Thanks to modern synthetic fibers
plus improved finishing techniques, the new sheers,
contrasted with similar fashion fabrics of one or two decades ago,
combine sturdy performance
with an air of remarkable fragility.

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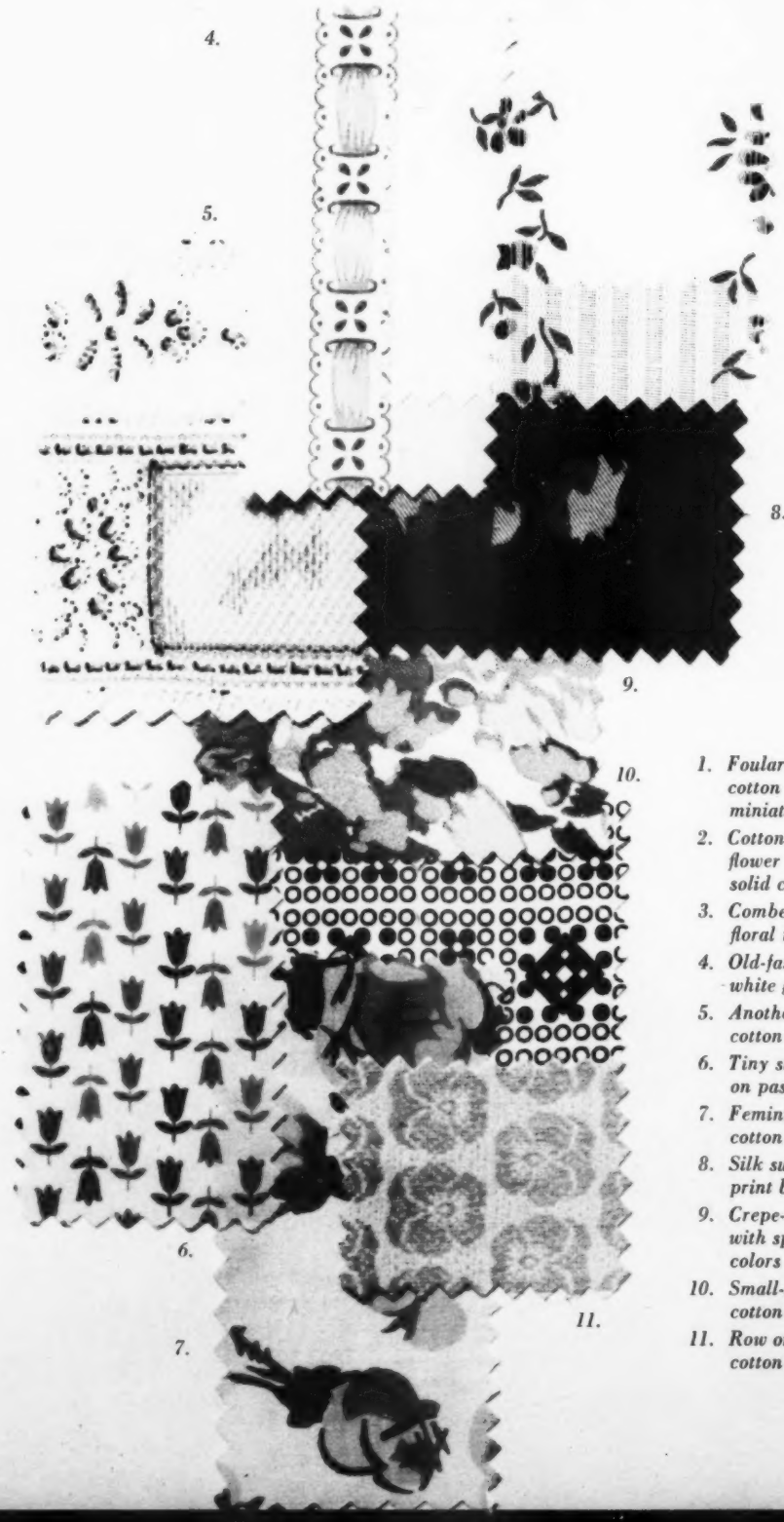
SEMI-SHEERS

1. *Fine rayon and silk georgette from* COHN-HALL-MARX.
2. *Crisp white-on-white organdy, flower-printed.* FRAN-TEX.
3. *Semi-sheer porous cotton in gingham checks* GALEY & LORD.
4. *Crisp silk sheer print from* BIANCHINI, FERIER.
5. *Creped cotton with bark-like texture by* ARTHUR BEIR.
6. *Light-weight silk taffeta in pastel colors from* FRAN-TEX.
7. *Everglaze cotton with matching voile print by* CONE MILLS.
8. *Acetate and Taslan nylon in a semi-sheer by* STEHLI.
9. *Fine voile all-over print by* ARTHUR BEIR.
10. *Silk organdy in traditional floral print by* FRAN-TEX.
11. *All-rayon lightweight crepe by* JULIUS WERK.
12. *Silk and nylon chiffon by* AMERICAN SILK MILLS.
13. *A classic pure-silk chiffon from* BIANCHINI, FERIER.
14. *Nylon sheer with a rich floral print by* JOYCE.
15. *Pure silk lightweight taffeta from* GOODMAN & THEISE.
16. *Nylon with Taslan nylon in a semi-sheer from* FRENCH.
17. *Taffeta and organdy in matching print by* ONONDAGA.
18. *Satin-striped ribbon sheer in cotton from* BATES.
19. *Supima cotton chiffon from* HOPE SKILLMAN.
20. *Silk chiffon and taffeta twin print by* FRAN-TEX.
21. *Silk organdy with novelty polka dot by* ONONDAGA.
22. *Nylon sheer with all-over multi-floral print by* TRAVIS.
23. *Pure silk chiffon with floral print by* ONONDAGA.
24. *Two-tone plaid print on a sheer fabric by* FRAN-TEX.
25. *Semi-sheer cotton, delicate all-over print by* FULLER.



OLD-FASHIONED

New fashion fabrics
will have an old-fashioned air.
Flowers are everywhere.
Floral patterns remind one
of grandmother's bedticking or
turn-of-the-century wallpaper designs.
Tea roses, forget-me-nots, diminutive
daisies are seen as recurring motifs.
Camisole ribbon prints,
baby calicos on white grounds
and floral stripes suggest specific
avenues of summer apparel designing.
Country flowers in a random arrangement
and child-like simulated block prints
on white grounds reinforce
the idea of morning freshness.
These fabrics indicate fuller skirts
and a softened silhouette treatment.



Dainty floral pattern printed on woven striped cotton fabric.
M. LOWENSTEIN

1. *Foulard print on fine Egyptian cotton favors trend toward miniature patterns by* SIMPSON.
2. *Cotton novelty nub with dainty flower stripe comes with matching solid colors by* ARTHUR BEIR.
3. *Combed cotton fabric with delicate floral motif by* BATES.
4. *Old-fashioned camisole print on white ground by* ARTHUR BEIR.
5. *Another camisole effect on cotton piqué by* FULLER.
6. *Tiny stylized all-over print on pastel ground by* BATES.
7. *Feminine rose motif on Supima cotton satin by* EVERFAST.
8. *Silk surah with random rosebud print by* AMERICAN SILK.
9. *Crepe-textured silk and rayon with spatter print in brilliant colors by* AMERICAN SILK.
10. *Small-scaled geometric on fine cotton lawn by* EVERFAST.
11. *Row on row of pansies in a cotton brocade by* HOPE SKILLMAN.

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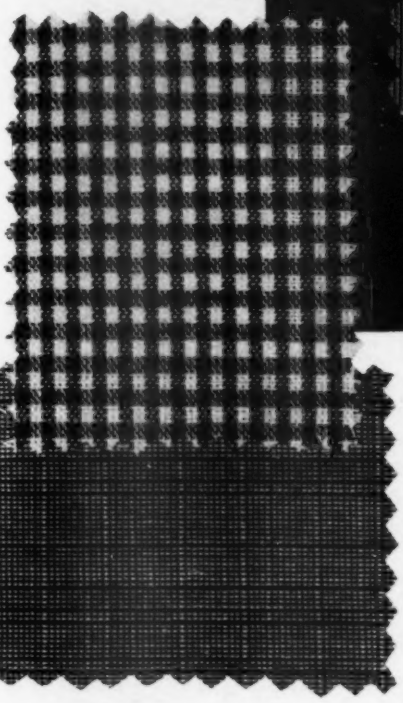
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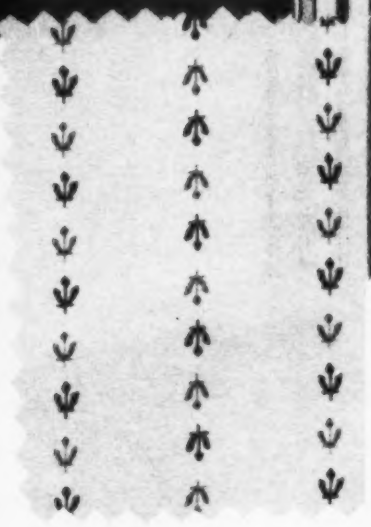
Sportswear or suiting weight of 75% Dacron and 25% cotton comes in light or dark tones. By GALEY AND LORD



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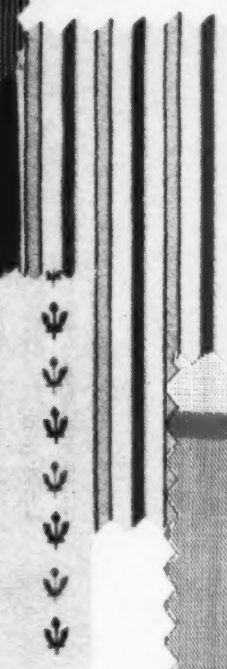


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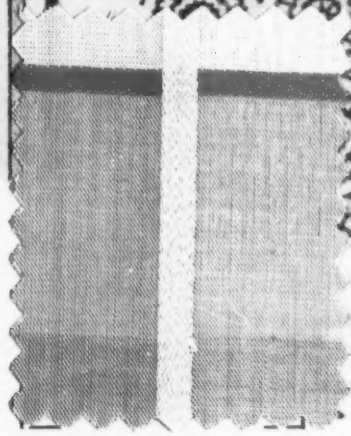
1. Miniature check in sportswear weight by TRAVIS
2. Darkened two-tone green fabric by SIMPSON
3. Slightly raised stripes on white ground, by FABREX
4. Dacron with Pima cotton in men's suiting by WAMSUTTA
5. Monotone check for men's wear, by EARL LOOM
6. Lightweight dress fabric with tiny print, by FULLER
7. All-over print covers light ground in fabric by FULLER



3.



4.



Yarn-dyed block plaid in brilliant colors for dress fabric of Dacron and cotton. By COHAMA

POWERFUL SELLING TEAM IN MANY MARKETS

DACRON

Du Pont's polyester fiber.

AND

COTTON

In this section, American Fabrics presents a report on some of the new and exciting styles now coming into the market, with more detailed information on what the manufacturer and retailer should know about Dacron and cotton, and a summary of new directions in which this blend is moving.

DACRON AND COTTON . . . *continued*

Biggest selling news in the market today is the dynamic blend of 65% Dacron and 35% cotton. The intimate Dacron-cotton blend is a powerful force which is able to attract volume sales for what is essentially a quality fabric. The great variety in styling now becoming available is making its influence widespread. Its major strength at present is in dresses and blouses, it is already a factor in men's dress and sports shirtings, and is expected to gain in the sportswear and suiting fields with a carry-over of transitionals.

Recent studies have shown that the price-conscious consumer, in spite of the higher price of fabrics made from this blend as compared with all-cotton, will frequently buy a Dacron and cotton garment. The chances are even greater if she has had experience with this blend's performance.

Studies in the field have shown the reasons. Initially the appeal of two similar garments is approximately equal. In other words, they look the same. It is only after several wearings and launderings that the superior performance of the Dacron and cotton fabric is definitely established. The conclusion reached as a result of the studies is that the intimate blend, although higher in price, offers better long-term value in looks, performance and minimum care.

WHAT TO LOOK FOR

All-important in Dacron and cotton wash-and-wear fabrics are the blend, construction and finish. Unless all of these factors are right in relation to the type of fabric and end use, the goods will not perform fully up to the standard the consumer has a right to expect. It is most important for manufacturer and retailer alike, who wish to take advantage of the Dacron and cotton market situation, to ensure that the fabrics they handle are *blended, constructed and finished in accordance with correct techniques.*

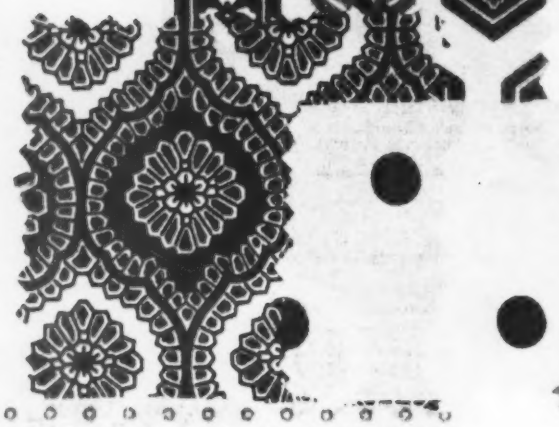
For a quality Dacron and cotton fabric that will perform as promised, both the warp and the filling should have blended yarns of not less than 65% Dacron and 35%, or the balance, cotton. The 65 to 35 ratio has been found to be the most satisfactory blend for taking advantage of the desirable properties of each of the fibers. In these proportions, the Dacron provides excellent dimensional stability, press retention, wrinkle recovery and abrasion resistance; the cotton provides absorbency, reduces static, improves the resistance to hole melting and ensures that the fabric tailors well. To provide fabrics that will meet customer expectations, proper construction is essential. The fabric must possess sufficient ends and picks, according to its type, if it is to benefit fully from the fiber combination.

Just as important is the finishing. Specific finishing procedures which prevent pilling and keep the aesthetic quality of the hand have been arrived at through extensive laboratory, plant and end-use tests. Correct procedure here is essential to produce a fabric that performs. Where an attempt has been made to cut costs by reducing the number of processes, inferior quality has been the result. At the

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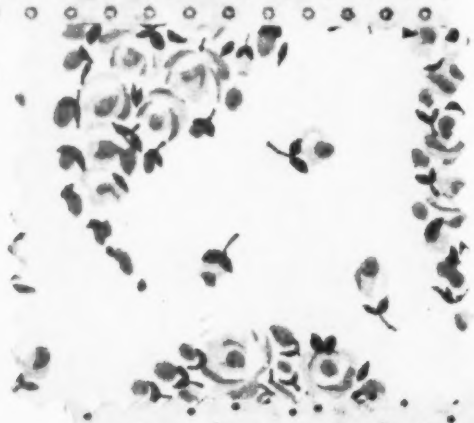
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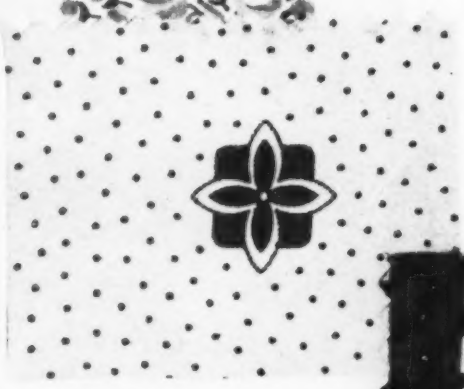


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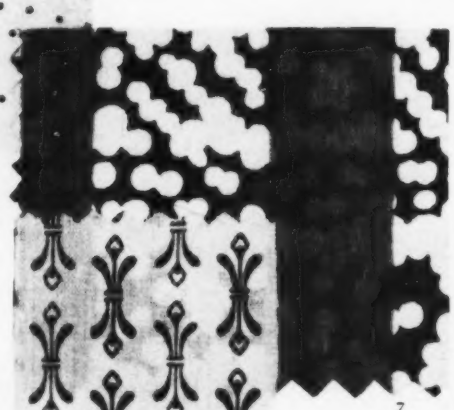


Carnation print on white ground reflects fashion trend in Dacron and cotton dress and blouse fabric. By FULLER

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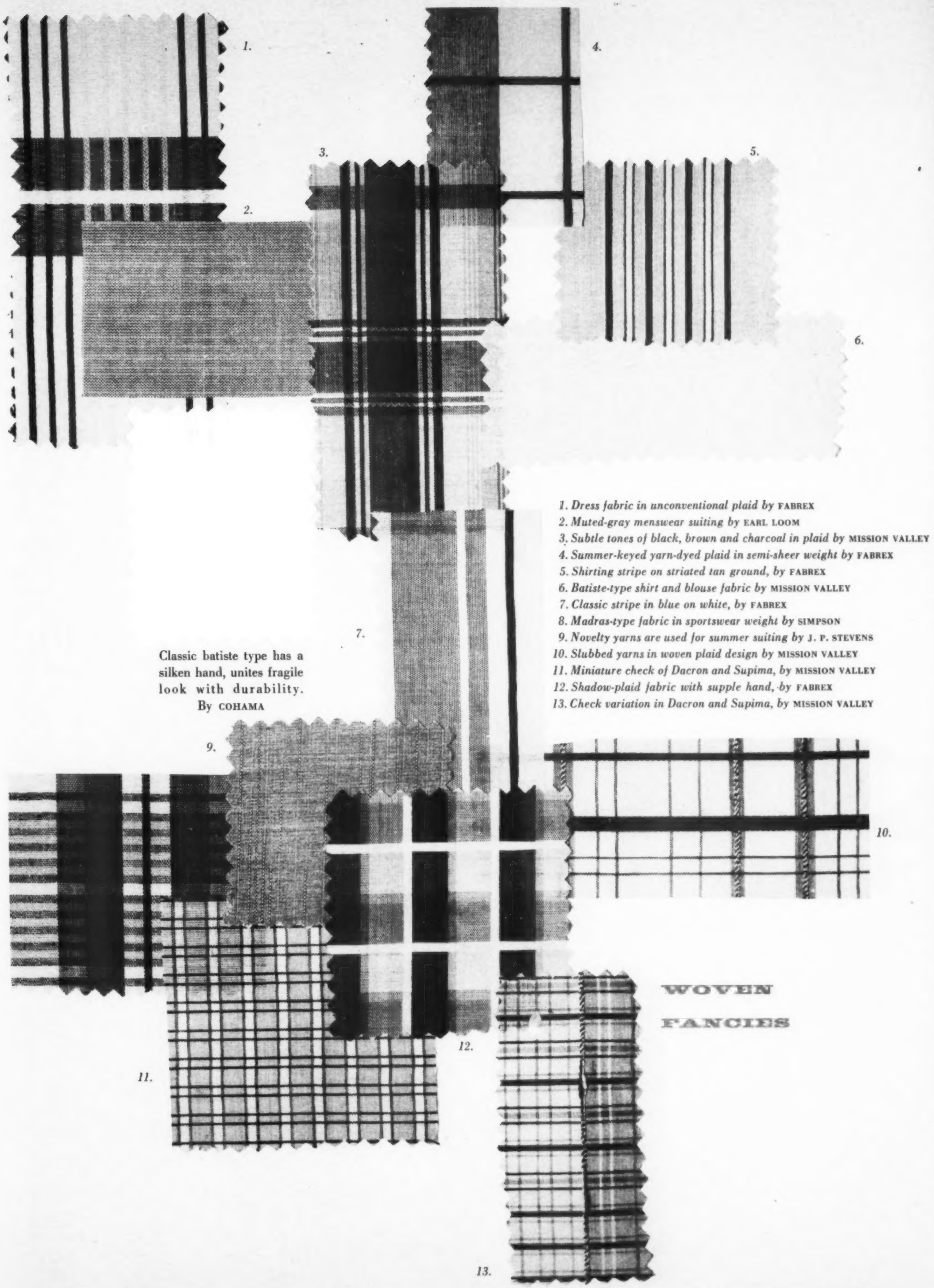


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PRINTS

1. *Travel print requiring no ironing, by* COHAMA
2. *All-over provincial print by* FULLER
3. *Semi-sheer with colored dots on white, by* FULLER
4. *Lightweight shirting in classic pattern by* TRAVIS
5. *Delicate rose-pink, white and green paisley by* TRAVIS
6. *Sheer dress fabric printed in brown on beige, by* FULLER
7. *Bold color stripe carries black surprint, by* TRAVIS
8. *Small precise print in all-over design by* FULLER



1. *Dress fabric in unconventional plaid by* FABREX
2. *Muted-gray menswear suiting by* EARL LOOM
3. *Subtle tones of black, brown and charcoal in plaid by* MISSION VALLEY
4. *Summer-keyed yarn-dyed plaid in semi-sheer weight by* FABREX
5. *Shirting stripe on striated tan ground, by* FABREX
6. *Batiste-type shirt and blouse fabric by* MISSION VALLEY
7. *Classic stripe in blue on white, by* FABREX
8. *Madras-type fabric in sportswear weight by* SIMPSON
9. *Novelty yarns are used for summer suiting by* J. P. STEVENS
10. *Slubbed yarns in woven plaid design by* MISSION VALLEY
11. *Miniature check of Dacron and Supima, by* MISSION VALLEY
12. *Shadow-plaid fabric with supple hand, by* FABREX
13. *Check variation in Dacron and Supima, by* MISSION VALLEY

Classic batiste type has a silken hand, unites fragile look with durability. By COHAMA

WOVEN FANCIES

POWERFUL SELLING TEAM

DACRON AND COTTON . . . *continued*

present time, all major finishers have the experience and necessary knowledge to produce fine fabrics in the new blend, and the Du Pont Company is cooperating by supplying technical assistance all along the line to spinners, weavers and finishers throughout the trade, to maintain the standard of quality fabrics.

VOLUME BLEND

As a merchandising force, the 65/35 Dacron and cotton blend is a volume, not a luxury fabric. Results of a survey conducted for Du Pont by an independent survey organization showed that in the men's shirting field more Dacron and cotton shirts were owned by men in the income bracket of $3000 to $5000 a year than by any other category — this despite the considerably higher initial price. The income group which rated next to the top in ownership of these shirts was the bracket under $3000. According to indications, the broad appeal of the Dacron and cotton shirts was based on their neat appearance in use, their easy maintenance and longer wear.

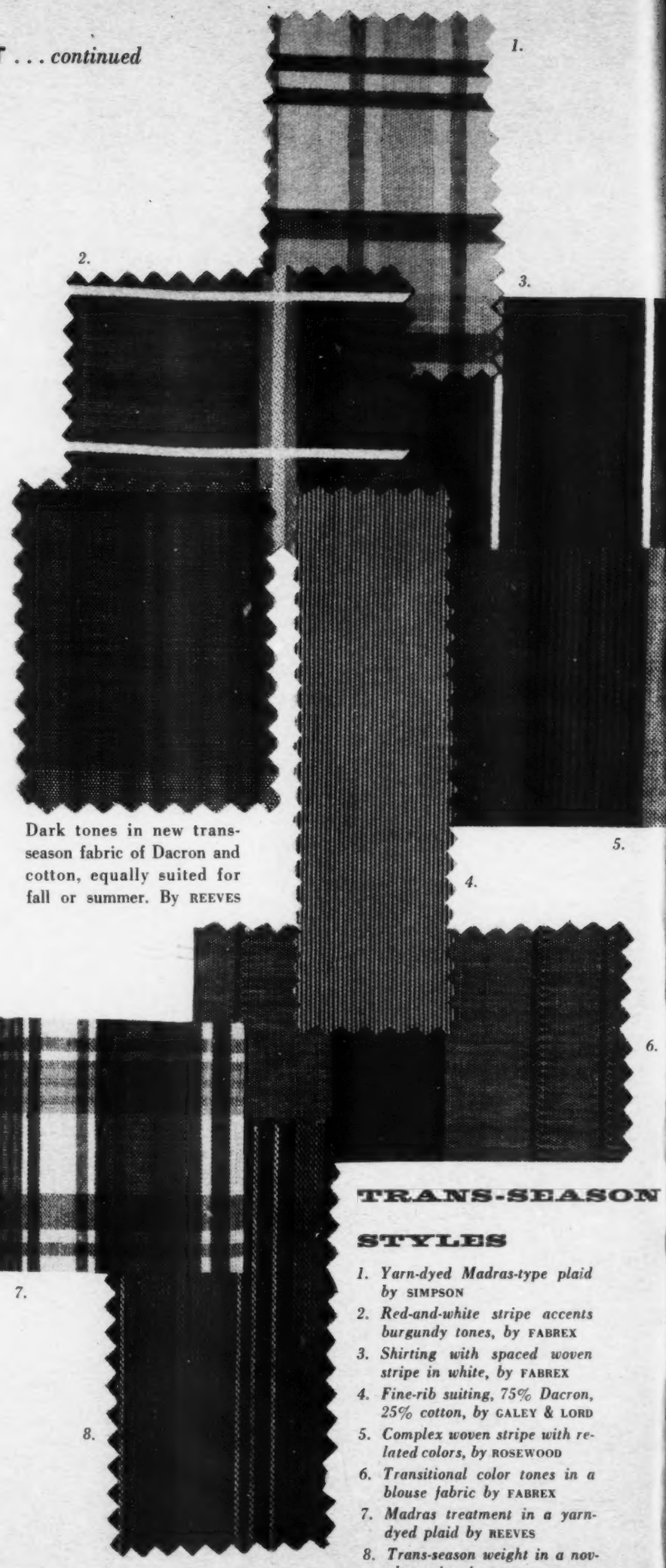
MARKET PENETRATION

Such a wide variety in styling is currently available in plains, printed and yarn-dyed fabrics that this versatile blend is seen almost all across the board in dresses, blouses, lingerie, men's shirting, children's wear and raincoats. The strength at the moment is in dresses, blouses and men's shirts. Almost every important dress and blouse house has currently sampled the 65/35 blend. Up to date the sportswear fabrics have not been available in depth. However, with an extended range of styling and with increased distribution, more strength in the sportswear categories can be definitely anticipated. More and more mills and converters are including the intimate blend as a substantial part of their program. At the present time about a dozen firms are now selling 65/35 Dacron and cotton blend fabrics.

FUTURE INDICATIONS

This versatile fiber blend has literally swept the fashion market. It is currently the most vital merchandising and selling force in the field. There is no dearth of offerings at either the retail or wholesale levels. The variety of designs is quite clearly felt in summer fabric fashions, where leno types, poplins, broadcloths, sheers and semi-sheer fabrics are prevalent. Almost every category of plain, printed or woven yarn-dyed fabrics is available. Coordinations, too, are presenting important selling features. The future of the 65/35 Dacron and cotton blend would seem unlimited. Among the new developments are transition types in slightly heavier weights. Styled in the manner of trans-season cottons, they appear in dark yarn-dye colors.

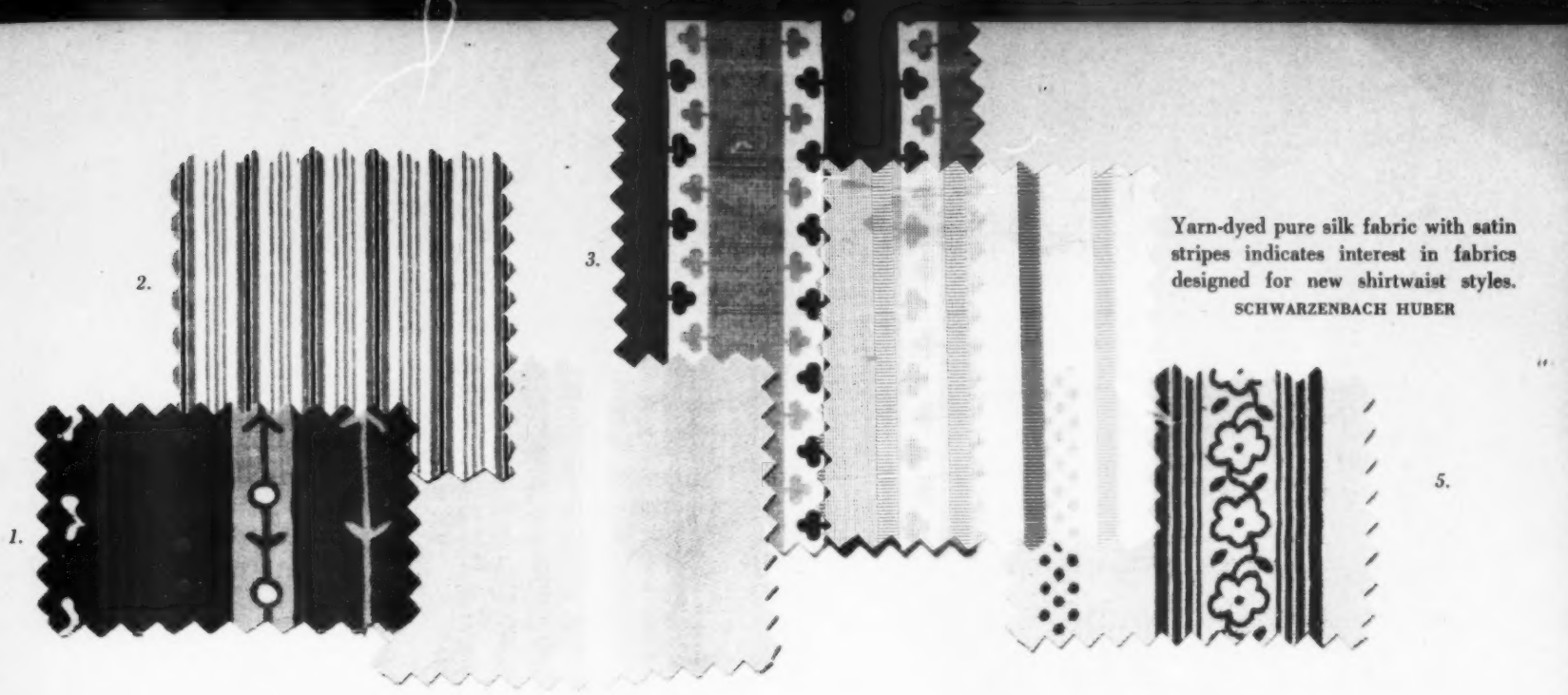
The advent of this intimate blend is one of the biggest stimulants to hit the fashion markets in a long time. It offers new possibilities for volume sales across the board.



Dark tones in new trans-season fabric of Dacron and cotton, equally suited for fall or summer. By REEVES

TRANS-SEASON STYLES

1. *Yarn-dyed Madras-type plaid by* SIMPSON
2. *Red-and-white stripe accents burgundy tones, by* FABREX
3. *Shirting with spaced woven stripe in white, by* FABREX
4. *Fine-rib suiting, 75% Dacron, 25% cotton, by* GALEY & LORD
5. *Complex woven stripe with related colors, by* ROSEWOOD
6. *Transitional color tones in a blouse fabric by* FABREX
7. *Madras treatment in a yarn-dyed plaid by* REEVES
8. *Trans-season weight in a novelty stripe from* TRAVIS



Yarn-dyed pure silk fabric with satin stripes indicates interest in fabrics designed for new shirtwaist styles.
SCHWARZENBACH HUBER

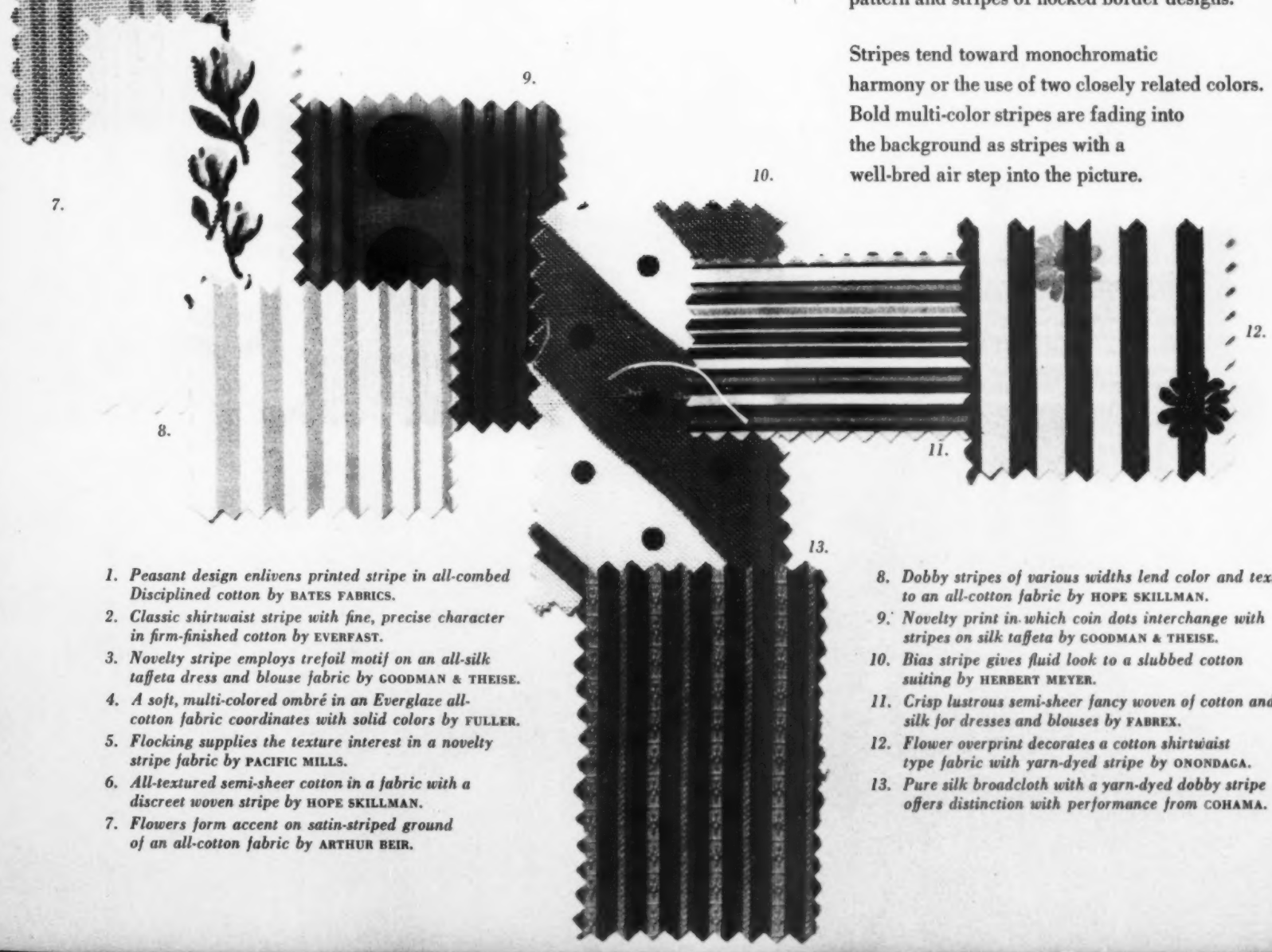
SUMMER FABRICS... *continued*

SHIRTWAIST STRIPES

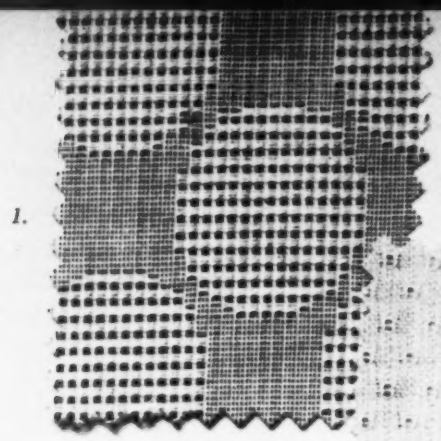
Many stripe fabrics suggest
softly tailored shirtwaist ensembles.
Again, the old-fashioned influence is at work
with floral patterns in stripe arrangement
which can easily be adapted to this silhouette.

Highlight of many fabric lines
are novelty stripes which challenge the
designer to greater variation in cut and line.
Among the many novelties are monotone
ombré effects, stripes alternating
with polka dots, stripes printed
on the diagonal, stripes with superimposed
pattern and stripes of flocked border designs.

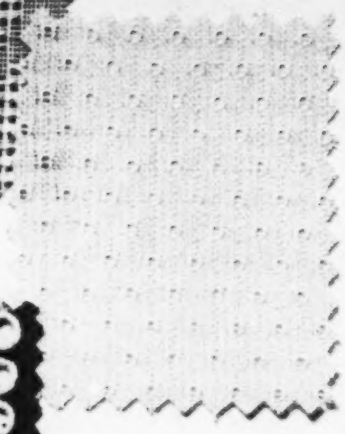
Stripes tend toward monochromatic
harmony or the use of two closely related colors.
Bold multi-color stripes are fading into
the background as stripes with a
well-bred air step into the picture.



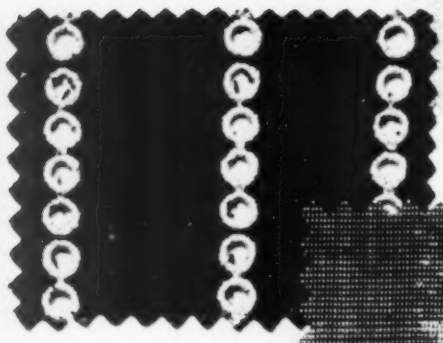
1. *Peasant design enlivens printed stripe in all-combed Disciplined cotton by* BATES FABRICS.
2. *Classic shirtwaist stripe with fine, precise character in firm-finished cotton by* EVERFAST.
3. *Novelty stripe employs trefoil motif on an all-silk taffeta dress and blouse fabric by* GOODMAN & THEISE.
4. *A soft, multi-colored ombré in an Everglaze all-cotton fabric coordinates with solid colors by* FULLER.
5. *Flocking supplies the texture interest in a novelty stripe fabric by* PACIFIC MILLS.
6. *All-textured semi-sheer cotton in a fabric with a discreet woven stripe by* HOPE SKILLMAN.
7. *Flowers form accent on satin-striped ground of an all-cotton fabric by* ARTHUR BEIR.
8. *Dobby stripes of various widths lend color and texture to an all-cotton fabric by* HOPE SKILLMAN.
9. *Novelty print in which coin dots interchange with stripes on silk taffeta by* GOODMAN & THEISE.
10. *Bias stripe gives fluid look to a slubbed cotton suiting by* HERBERT MEYER.
11. *Crisp lustrous semi-sheer fancy woven of cotton and silk for dresses and blouses by* FABREX.
12. *Flower overprint decorates a cotton shirtwaist type fabric with yarn-dyed stripe by* ONONDAGA.
13. *Pure silk broadcloth with a yarn-dyed dobby stripe offers distinction with performance from* COHAMA.



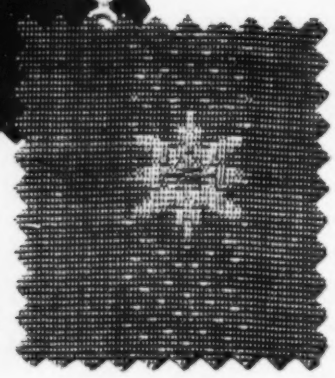
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AJOUR

As maidenly as a petticoat, as dainty as a nosegay, are many of the drawn-work and leno effects in summer fabrics. Frequently this open texture is paired with stripes of colorful dobby embroidery for a quaint yet airy quality. When the drawn work is executed in the same color as the ground fabric, the result is an interesting tone-on-tone coloring.

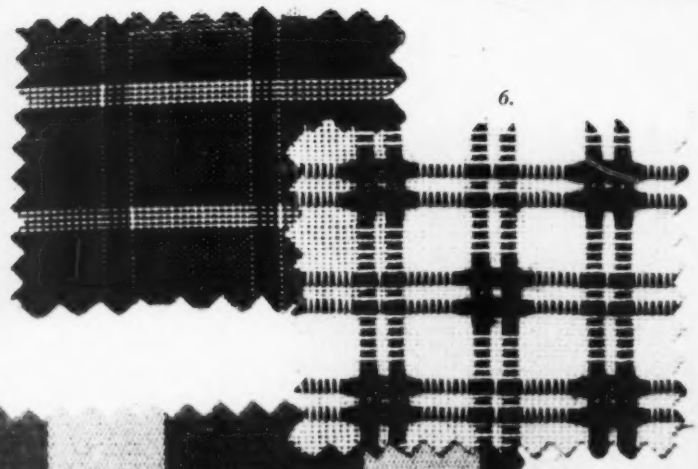
EMBROIDERIES

In the same feeling of the hand-worked textures are the many embroidered type fabrics. These keep the fresh clean look in clear pastels with small-scaled precise patterns covering the ground color. Embroidery is sometimes superimposed on a textured background of jacquard construction for added richness.

9.

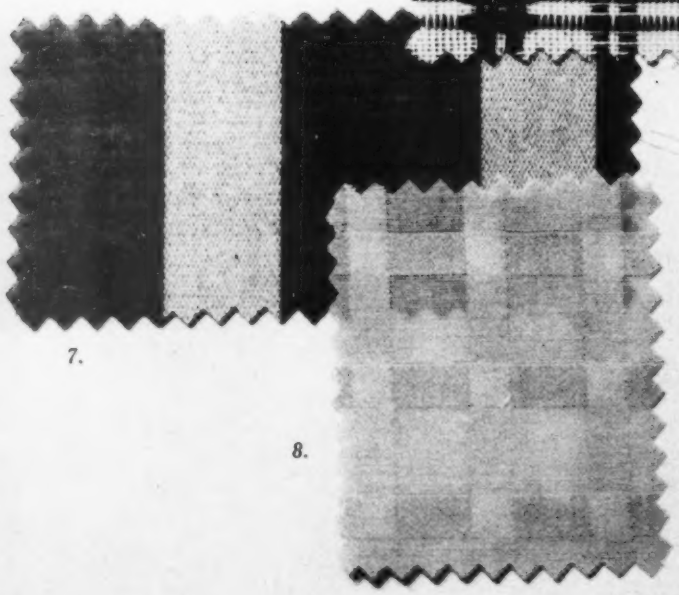
SUMMER FABRICS... *continued*

HAND-WORKED LOOK



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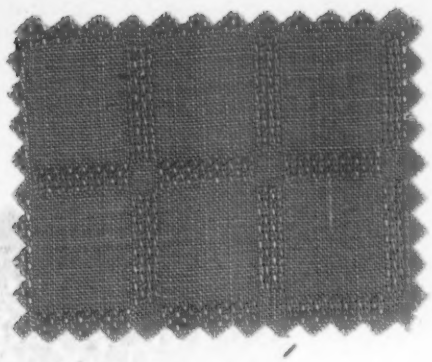
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SIMULATED STITCHING

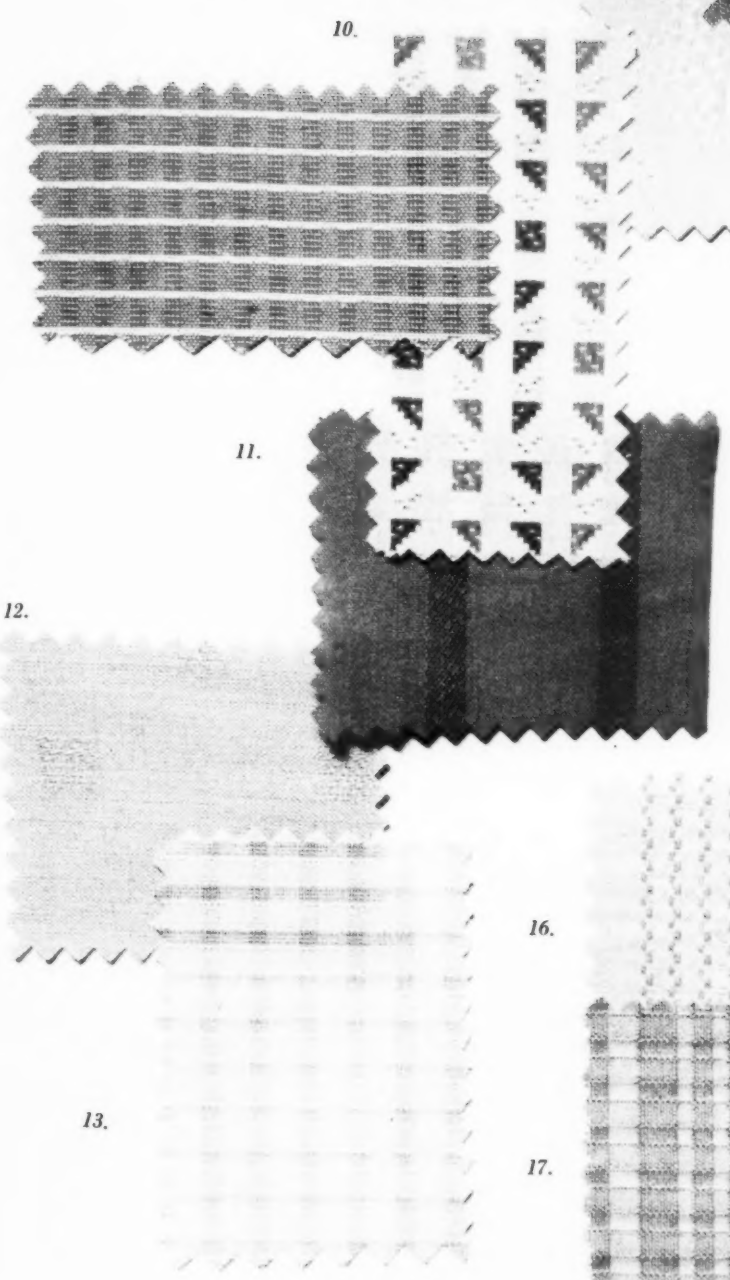
Trim and attractive are the summer fabrics with an accent of stitching. Again this texture technique stresses the hand-worked look. White is an important ground with contrasting stitching. Plaids include rows of simulated hand stitches as part of the design. Here the monochromatic idea reappears when the colors employed are the same.

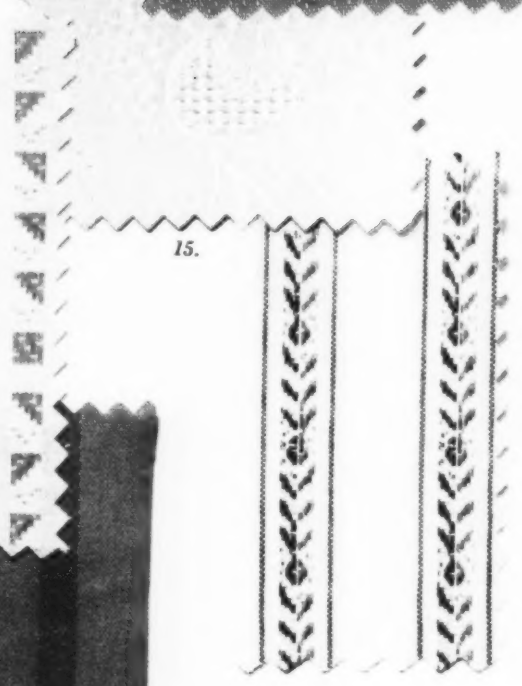
WOVEN RIBBON TEXTURES

Equally charming are the woven ribbon textures in stripes and checks. Some of these belong to the semi-sheer group. Others are opaque and of fine broadcloth shirting weight. Color treatment is especially important because monotone effects in pastels predominate, the weave supplying not only texture but the ever-so-slight contrast in tones.

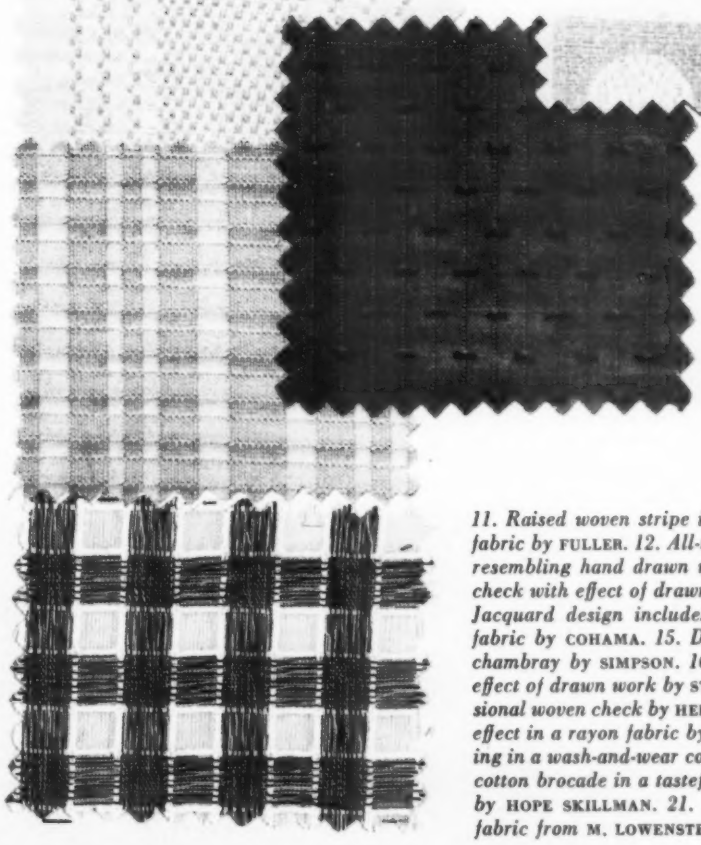


Drawn-work effect distinguishes *Antigua Decor 2*, rayon dress fabric which is lightweight and crease resistant.
FULLER FABRICS









LEFT-HAND PAGE: *1. Leno-type dress fabric of combed cotton and silk from* FULLER. *2. Perforated effect in a cool rayon dress or suiting fabric by* LOWENSTEIN. *3. Moygashel linen with classic embroidered eyelet treatment from* HAMILTON ADAMS. *4. Cotton and silk in a subtly embroidered texture by* FABREX. *5. Dusky all-cotton forms a sophisticated town fabric with accent of stitching by* M. & W. THOMAS. *6. Cotton dress or coating weight with surface interest provided by interlacing of novelty yarns by* DUKAY. *7. Woven ribbon stripe in cotton and silk with lustrous hand by* FABREX. *8. Dimensional texture in satin checked cotton by* LOWENSTEIN. THIS PAGE: *9. Interesting porous check in a semi-sheer of cotton with silk by* M. & W. THOMAS. *10. Mosaic in a colorful cotton brocade by* HOPE SKILLMAN. *11. Raised woven stripe in a cotton and Cupioni dress fabric by* FULLER. *12. All-rayon fabric with square motif resembling hand drawn work by* FULLER. *13. Gingham check with effect of drawn work by* HERBERT MEYER. *14. Jacquard design includes openwork in summer dress fabric by* COHAMA. *15. Dobby embroidery on a woven chambray by* SIMPSON. *16. Cotton and silk fabric with effect of drawn work by* STEHLI. *17. Openwork in dimensional woven check by* HERBERT MEYER. *18. Hemstitching effect in a rayon fabric by* FULLER. *19. Simulated stitching in a wash-and-wear cotton by* MOORESVILLE. *20. Rich cotton brocade in a tasteful geometric pattern designed by* HOPE SKILLMAN. *21. Accent of stitching in cotton fabric from* M. LOWENSTEIN.

Novelty windowpane check of 88% cotton, 12% silk offers a cool, crease-resistant summer dress fabric.
HERBERT MEYER

FABRIC FOOTNOTES

SILK INFLUENCE ON COTTONS

The polished surface and pliable hand characteristic of silk can be observed in many cotton fabrics. Fine quality sateens in delicate patterns and plain fabrics in soft pastels such as mauve, lavender and blush pink are outstanding. Dobby stripes gleam on white grounds. Silk combines with cotton for a lustrous, crisp hand. Cotton is used with Cupioni for a slubbed silken surface. A very fine cotton twill which closely resembles surah, is the ground for foulard type prints.

SUPIMA COTTONS

The prevalence of fabrics woven of Supima cotton is clearly marked this season. The fine, long staple American yarns are used in yarn-dyed and piece-dyed fabrics, prints and in a variety of fabrics in different weights. The soft quality hand offered by these yarns is particularly suited to the trend of softer, more feminine fashions.

MONOCHROMATIC PRINTS

The key to the color trend in silk prints is the emphasis on monochromatic color treatments. Designs are worked out in hues of greater or lesser intensity than the background colors, with the degrees of difference very slight. The use of shades of the same color is highly significant in florals. This same careful manipulation of color carries over into cotton prints. Twin prints in chiffon and in taffeta are very important in silk lines.

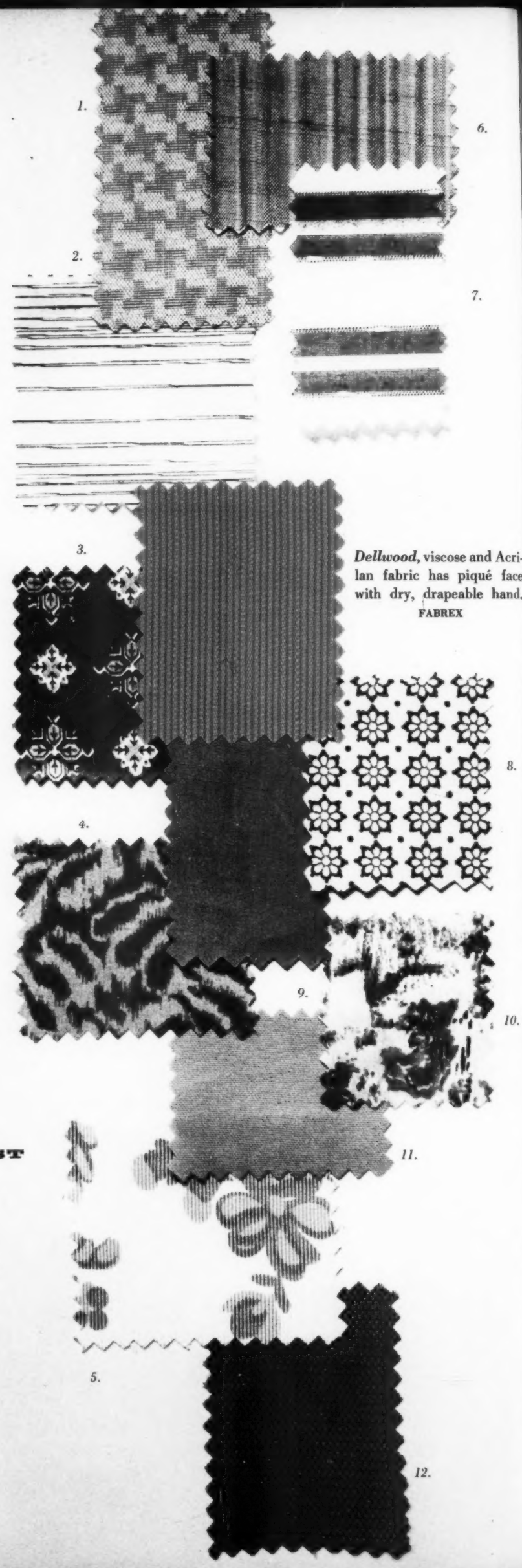
PASTEL CREPES

Indicative of the revival of interest in crepes are those in pastel colors and white. Suitable for afternoon costumes or after-five ensembles, crepes have much fashion significance for summer and will have even more importance for fall.

DIMINUTIVE TEXTURE INTEREST

Cotton piqués and finely ribbed fabrics in cotton as well as blends make a point in favor of classic surface interest.

1. SCHWARZENBACH'S *new dress fabric indicates the influence of silk styling on cotton. 2.* LOWENSTEIN'S *silk and cotton has etched look, crisp hand. 3. Lightweight cotton satin of fine Supima yarns from* EVERFAST. *4.* ONONDAGA'S *two-toned print on an all-silk fabric. 5. Fine cotton piqué embellished with a floral print from* BIANCHINI, FERIER. *6. Cupioni supplies slubbed effect in a cotton combination by* STEHLI. *7. Lustrous look, crisp frosty hand marks semi-sheer by* FABREX. *8. Miniature Gothic rose printed on fine Supima fabric by* EVERFAST. *9. All-Supima broadcloth from* FULLER *which comes in solid colors. 10. Flowers and ground contrast with foliage in all-silk taffeta by* COHAMA. *11. Textured acetate and rayon crepe in a range of pastel colors from* STEHLI. *12. Weave supplies this fabric with miniature texture interest, from* SCHWARZENBACH.



Dellwood, viscose and Acrilan fabric has piqué face with dry, drapeable hand. FABREX



Sports car and sportswear are represented in the foreground by the model and the machine. In the background is John Weitz, who is profoundly concerned with both of them. The machine is the Morgan he drove in the Sebring World Championship. The model wears his creation, Paratroop Pants.



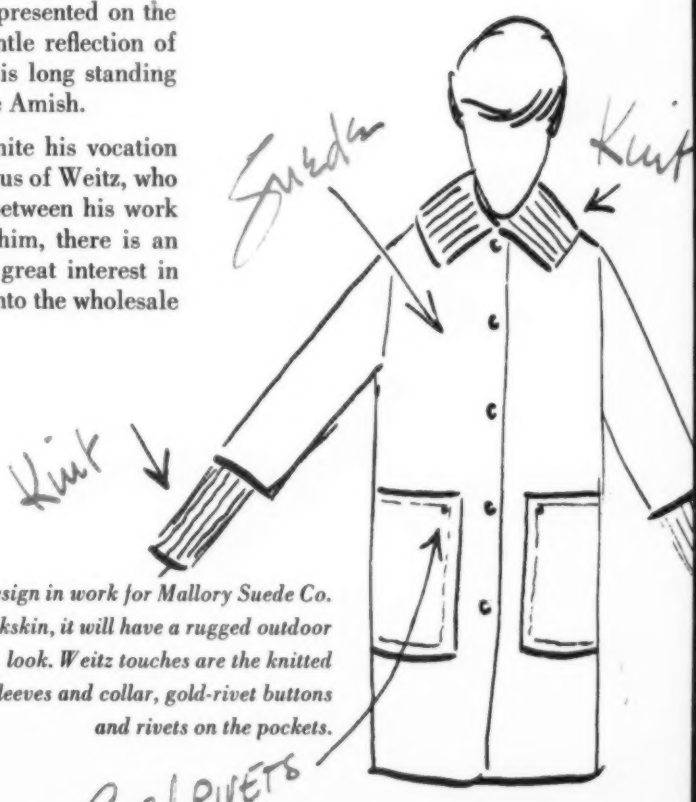
John Weitz

his designs reflect his life story

John Weitz loves to be copied. He claims it's the sincerest form of flattery for any pioneer.

In a certain sense, Weitz has a tendency to copy himself — his designs often mirror his own far-flung personal interests. There is the jaunty, feminine adaptation of the rugby shirt he wore when an athlete at St. Paul's. His knee-pocket tapered pants are patterned after the paratrooper's trousers he wore during his service in the army. And a part of his present collection, presented on the pages that follow, contains a gentle reflection of another one of his interests — his long standing admiration for the apparel of the Amish.

The poet who once wished to unite his vocation with his avocation would be jealous of Weitz, who finds relationships everywhere between his work and the world he lives in. For him, there is an obvious connection between his great interest in sportscar racing and his forays into the wholesale



A design in work for Mallory Suede Co. Made in buckskin, it will have a rugged outdoor look. Weitz touches are the knitted mid-sleeves and collar, gold-rivet buttons and rivets on the pockets.

PHOTO EMMA GENE HALL





John Weitz . . . *continued*

Here is the outfit, worn daily by the men of the Amish community,
which gave John Weitz the idea for the two-piece casual costume opposite.
The "mutze," as the Amish call the jacket, repeats the traditional V-neck and silver-hook closing
of the original. It is made of Cone's Federal cotton faille.
Slim and tapered pants have a special flap closure to ensure flatness in front.
Hat by Adolfo of Emme was also borrowed from the Amish.





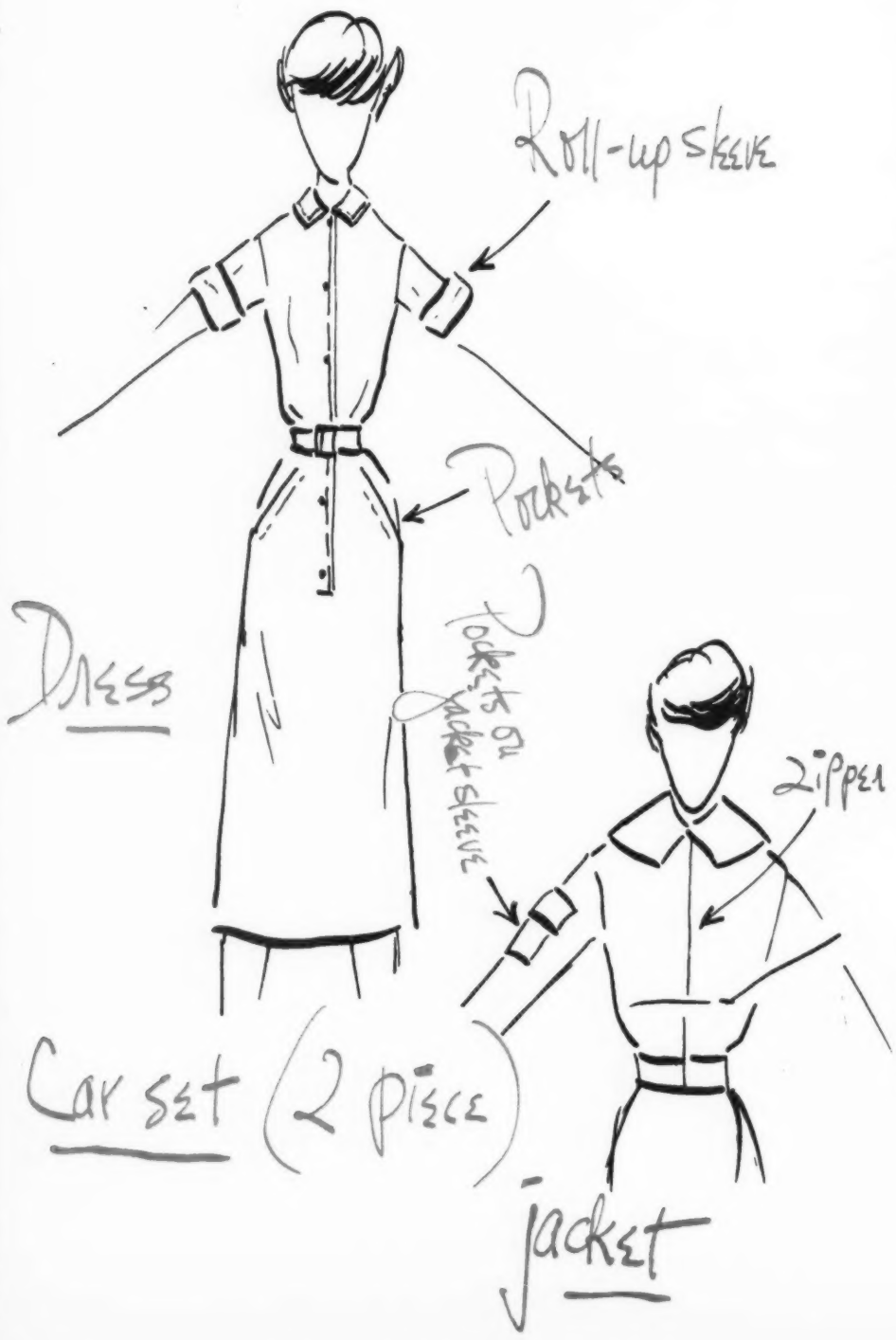
John Weitz ...continued

market. Both call for instantaneous judgment and the willingness to take a big chance and then stick with it.

Weitz's thinking goes beyond the drawing board. There is a difference, he likes to reflect, between the clothes that women admire and the clothes they buy, and out of this observation comes the question: What *is* the mystery of appeal that finally makes a woman put down her money? Weitz has several answers. Sportswear, for example, is a gay, giddy, not-to-be-taken-seriously form of apparel. The design is secondary to the manner in which each woman "puts it all together" to suit her own individuality.

Unlike most designers, John Weitz rarely complains about the lack of special weaves or patterns in the textile collections. He feels the market is full of exciting fabrics and if any problem exists it is the simple one of blending the fabric and the idea. Both the fabric and the cut are merely tools toward the realization of his basic design concept: clothes that move with the figure.

Weitz is new to the fashion world but already he has strong convictions about it. This dynamic young designer refuses to compromise in the way he cuts his sizes. His "straight as a plumb line" sportswear designs were created with slim-hipped, long-legged, wide-shouldered American women in mind. Luckily, many American women are wonderfully built — to the Weitz specifications. The chic young married woman with more fashion know-how than money, and who is a definite figure type, can find in the Weitz design all the fluid motion, comfort and suppleness identified with the new, relaxed American look ■



A traveling duo — John Weitz's two-piece "car set" of water-repellent combed cotton poplin. Because the average girl dislikes any hip bulk, Weitz places a pocket for cigarettes on the sleeve.

Beach pajamas return in a smoother, nattier shape. These, made of striped Dansheen cotton by Dan River Mills, have V-neck, collarless middy top. Pockets on pants are slashed to maintain flat front. Right: Cropped beach top in bold red and white stripe reveals the midriff. It is worn with very short shorts.







A boon to the working girl is the sleeveless jacket and slim skirt combination, shown in two versions. Above it is interpreted in Chatham's beige wool fleece; at far right in Crompton-Richmond's putty corduroy. Right: The Rugby Shirt is a striped version of the one traditionally worn in the game.







PHOTO EMMA GENE HALL



PHOTO PETER FINK

Arnold Scaasi has a hand for fluid lines,
an eye for fabrics that flow.
The result: incredibly elegant, dramatic dresses.
Opposite: Scaasi sweeps skirt of ballgown out in back,
draws it upward, fastens it
at the bosom with black cabbage rose.
Colors are subtle: black silk satin skirt,
taupe satin bodice. Below: Long slim silhouette
is carried out in black wool broadcloth.

Scaasi

a young designer in the grand manner



Dressing a few important, rich women no longer seems to hold the lure it once did for good designing talent. Is the challenge too small? Is it too risky and uncertain? Whatever the reasons, more and more young talent is being attracted to the wholesale operation. Arnold Scaasi, a twenty-five-year-old designer with experience in custom dressmaking is the latest to bring his custom technique to the wholesale field.

In the designing of Arnold Scaasi the cut is the important element and emphasis is put on the natural fluid line. He drapes in muslin and the shape evolves. While his clothes are cut and seamed for functional living, the stress is always on gentility and elegance.

Scaasi would like to dress the young matron not so much to make her chic and fashionable as feminine and pretty. For him, fashion's first duty is to make a woman beautiful. At the same time, he rarely forgets that the American woman seeks, above all, to look young. To give the impression of youthfulness is perhaps her first desire. It is this drive of hers that largely influences our entire fashion industry. Side excursions are permitted, but woe to the designer who completely ignores this important goal.

Scaasi divides his designs into two categories — a day look and a night look. He sees the day look



PHOTO: EMMA GENE HALL

Opposite: The Restaurant Dress. Ideal for its intricately draped midriff and softly full skirt is the fabric — chiffon in poppy color. Right: Scaasi designed this broadcloth dinner suit in 1954. Today its cape effect and top bulk are the very newest fashion.



Scaasi chose a bold and bulky fabric — giant navy and kelly green blanket plaid — for a striking coat with accent at the top of the figure. Below: In a fanciful mood, Scaasi cloaks a skin-tight cotton coverall with a mantle of paisley.



Scaasi ... *continued*

as one that is simple and practical for today's active living. For night, he thinks that a woman should change her personality and become glamorous, mysterious and intriguing. Scaasi's preferences in color go to the basic ones: black, gray, beige and navy, accented in day clothes by white. Red, for him, is also a basic color, one which can give diversity to a woman's wardrobe.

Scaasi works entirely in the natural fibers — wools, broadcloths, flannels and tweeds for day wear and in chiffons and satins for evening. He seldom buys imported fabrics because he finds the American textile market can fill all his requirements and has added advantages. When he buys from an American firm, there is no problem about delivery. He also knows that he gets the same fabric delivered that he was shown when he ordered. If not, redress is possible and mistakes can be rectified, if only because of proximity. He would, however, like to see the American textile market display more courage and embark on greater experimentation. There is a place in America, according to his thinking, for the production of the exquisite fabrics we see in France and Italy.

Behind Scaasi's design thinking is the conviction that today's success will be tomorrow's cliché; it is essential to do something different tomorrow. The prediction: however novel his designs to come, they will still reflect feminine and youthful styling. Here is a young man who has hold of a fashion truth he will not abandon until it makes his major success ■



Scaasi . . . *continued*

With assured hand, Scaasi draws the lines of a sumptuous greatcoat. Colors are electric: fuchsia satin lined with orange silk Shoulder fit is normal, narrowed, then builds into funnel neckline to effectively frame the face.





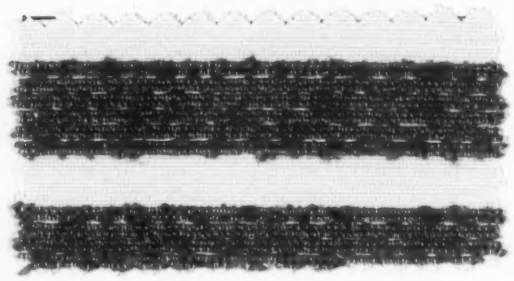
The change of clothes;
What seemed a world of grief and woe
You look as if you had forgotten it all . . .

BUSON

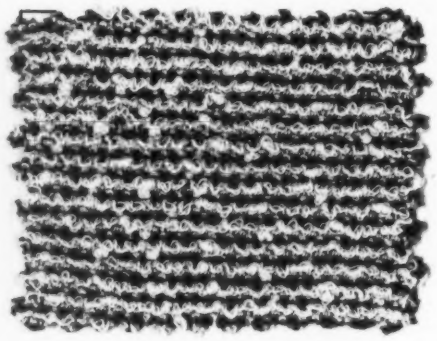
Lastex lace fabric woven on a Levers lace machine represents new development in fashion fabrics for swimwear. By THOMAS WILSON



Color-fast Chromspun bouclé yarns form colorful horizontal stripe in elasticized swimsuit fabric that has resilience, strength, beauty. By ROSENSTEIN BROS.



New high-style swimwear fabric of nubbed cotton and Lastex yarns offers fashion-flattery, fit and durability. By FAIR-TEX



seashapes in fabric

elastic textiles mold modern swimwear

Would you choose evening gown fabrics for sportswear?
Can girdle fabrics stand up to sun and salt water?
Before you respond with a loud "NO" to answer both questions, take a second look at the illustrations on these pages.

Swimsuits that really fit and flatter the wearer are made of elastic fabrics. Woven fabrics are usually preferred; shirred elastic materials are a close second. Gathering importance is a new fashion star — elastic knits. Common denominator to all three is the American yarn development that transformed the bathing scene — *Lastex*, product of United States Rubber Company.

Most elastic swimsuit fabrics today are blends of Lastex with other fiber yarns. In this blending, whether knitted or woven, the search is always for fabrics of soft hand, good wet strength, quick drying time, and affinity for the strong, bright colors that will make an impression under the dazzling sun. With these attributes always come the two that are basic to these swimsuit materials: an elongation generally above 60% to achieve successful fitting in standard size ranges; an adequate modulus or tension in the goods to produce the live resilience so necessary when fabrics are worn in the water. It is the hair-like strand of latex within the Lastex yarn that produces the elasticity that achieves these swimsuit objectives.

The other fibers in swimwear fabrics run virtually the whole range of synthetics. Currently, these combinations are being further enriched with metallic yarns. Lurex and Metlon have added their golden cast to beach apparel and other metallic tones have also brought brilliance. In the field of color, the advent of solution-dyed synthetics has contributed longer wear life. Chromspun and Celaperm are outstanding examples, and their remarkable color fastness has added a great deal to the practicality of waterwear fabrics that must stand up to sun and sea.

Just as there are trusted brands and famous designers in the manufacture of swimsuits, there are today also skilled craftsmen and experts in fabricating woven, knitted and shirred elastic constructions. The renaissance in knitted swimsuit fashion has not only restored this knitting specialty to firms like Gantner, Catalina and Jantzen, but has given birth to several firms which knit fabrics for swimsuit manufacturers. Alamac and Fair-Tex are leading examples. Such outstanding manufacturers as Charles Peberdy & Sons and M & M Knitting Mills in Philadelphia are again knitting garments for the trade.

In the woven field one of the mills that engaged in extensive development work with Lastex in the mid-thirties is still a leader in serving the swimsuit trade. This is H. Warshow & Sons. Among other firms which are active in meeting style needs of the industry are Rosenstein Bros., S.M.S. Textile Mills and Fab-Tex, Inc. In the field of shirring, a pioneer in this technique is Bratman Bros., Inc.

To the basic waterwear materials must now be added a fourth fabric which came on the scene in the current collection of Cole of California. It is a Levers lace fabric from Thomas Wilson & Co., Inc. In an exceptionally fine fitting swimsuit, the elastic lace made a remarkable hit at its first showing. The graceful beauty of the jacquard patterns, the subtle porosity of the material and the excellent figure control in this construction portend wider use.

While we see only shapely seashapes when we think of beauty on the beach, it is the more prosaic element of elastic fabrics that provides much of that shape and beauty. The fabric producers in this highly competitive and seasonal industry are sensitive to fashion in line, color and texture, and to all fiber and finishing innovations. For where else in the fabric world must sheer beauty serve such practical purposes?



In a sculptured Cole of California swimsuit curve-controlling Lastex takes on the important new knit look. Simple, severe neckline is echoed by horizontal stripes.



Embroidered Orlon and Lastex knit swimsuit by Catalina has striking texture interest. Deep V armholes give freedom for swimming while body is supply molded.





Jantzen's Cartagena ensemble has lace embroidery on Lastex swim sheath, also on matching Orlon sweater. Figure-flattering vertical stripes offer bold black and white contrast.

PROGRESS REPORT ON

VEREL

Verel, modified ăcrylic fiber developed by Eastman Chemical, is now in the pilot plant stage, in preparation for commercial production by Tennessee Eastman Company at an early date. In view of this, American Fabrics presents a first report on its capabilities.

Verel offers a new combination of desirable textile properties in one fiber. It has good shrinkage and bulking abilities, unique flame resistance and is strongly resistant to acids and alkalies. Other special virtues are ease of dyeing by customary means and good lightfastness with selected dyes. With excellent blending properties in yarn, its forthcoming availability in different forms and lusters will open up a wide and interesting prospect in both the apparel and industrial fields.

Of special interest to the apparel field is Verel's luxurious softness and excellent dimensional stability, good wrinkle recovery, pleat retention and low pilling tendency.

AVAILABILITY

Pilot quantities of fiber are presently available for market evaluation. It is offered in four types: regular (shrinkage 0-2% in boiling water); type I (shrinkage 9-11%); type II (shrinkage 10-23%); type FR (outstanding flame resistance). After processing which minimizes shrinkage, the other three types are similar to regular Verel.

PHYSICAL PROPERTIES

Hand: Verel has an unusually soft, kind hand due to its high compliance and in part to high moisture regain. Because of this it is expected to prove important in blends with cotton, wool and man-made fibers in the knitwear and pile fabrics fields.

Tensile Properties: Verel is strong in tensile properties, yet it is softer and more compliant than most of the acrylic types, being somewhat similar to wool. Its elastic properties are similar to those of other acrylic fibers.

Thermoplastic Properties: Verel, being thermoplastic, has no melting point. It has a maximum safe ironing temperature of 300°F. The shrinkage properties of types I and II can be used to produce high bulk fabrics by treating with hot water. Verel has good resistance to moderate temperatures, its strength and elongation being unchanged by exposure to 120°F. for considerable periods. Its moisture regain of 3.5-4% gives ease of processing and comfort in wear.

Flame Resistance: Regular Verel has good flame resistance. Type FR is the most flame-resistant organic fiber known; it will pass all fire laws of any city or state and ranks in properties with glass and asbestos fibers.

Weathering: In weathering properties Verel is superior to any natural fiber and to most man-made fibers including acetate, the polyamides and the polyesters. It is highly resistant to mildew; buried for 12 weeks in moist river loam at 75°F., it was unaffected, while cotton controls decomposed in a week in the same tests.

Chemical Resistance: Verel possesses resistance to acids, alkalies and other chemicals in high degree. Immersion for four days in 40% nitric acid, in concentrated hydrochloric acid, in 50% sulphuric acid, in 50% caustic soda, in concentrated Chlorox, and in 30% hydrogen peroxide, did not affect tenacity or elongation characteristics.

Allergy: Tests show that Verel does not produce any reaction or sensitization in contact with the skin.

DYEING AND FINISHING

Dyes: Verel fiber is white as produced and does not normally require bleaching. Three classes of dyes have proved most effective in fastness and economy: neutral dyeing premetallized dyes which offer the best all-round fastness; dispersed acetate dyes which offer good fastness; and cationic dyes for specialty fabrics demanding brighter shades than can be obtained with the other two classes.

Methods: Dyeing methods are, in general, conventional as applied to these dyes; in dyeing dark shades a dyeing assistant, available from Eastman Chemical, may be required.

Dyeing in blends: In blends with other fibers Verel may be dyed in almost any combination — union, color on color and white on color effects. So also Verel and wool, Verel and rayon or Verel and cotton offer a great number of dyeing possibilities.

Finishing: Certain precautions should be observed in finishing fabrics containing Verel. The fiber itself possesses crease retention and wrinkle resistance, and in finishing nothing should be done which will diminish or destroy these characteristics. If the usual finishing resins are used they will remain on the surface of Verel fibers and cause undesirable boardiness. Reduced amounts of resin may be used if desired, when it does not harm the Verel and enhances the other fibers.

As with other acrylics, temperatures in excess of 300°F. must not be used in finishing as this will stiffen the Verel.

Processing: Verel is easily processed on all the usual systems. When commercial production begins, tow will be available in accordance with customary trade requirements. It is presently available in staple form in 2, 3, 5 and 8 deniers per filament, in dull and bright luster and in lengths of about one to six inches.

Different systems: Evaluation on the cotton system has given satisfactory yarns as has processing on woolen and worsted systems, both in all-Verel and in percentage blends. Verel has been tested in top making and Bradford worsted spinning. Frame- and mule-spun woolen yarns of excellent strength and levelness have been used for a wide range of materials from industrial fabrics to men's suitings.

Verel is a new tool for the textile technologists. Its unique flame resistance, chemical inertness to acids and alkalies, dyeing ability and excellent blending properties will qualify it for a host of special applications in both the industrial and apparel fields ■

SOURCE-BOOK FOR DESIGNERS

1930 1957

Ever present in the designer's mind are questions:

What is the direction of my creative impulse?

What sources are there for its expression?

How does my creative idea fit in with the mood of the women for whom I am designing?

Bearing such important questions as these in mind, the *Editors of American Fabrics* offer the following pages as a source of inspiration for the mood of today.

Good fashion ideas never die.
They crop up again and again, modified but
essentially unchanged.
In this case, Bergdorf Goodman
adapted a black and white
checked wool coat, vintage 1910, to 1955.





1930

SOURCE-BOOK . . . *continued*

1957



SKETCH BY POLLARD, VOGUE, 1930

The figure of the Thirties was swathed
in fabric, wrapped in furs. Augustabernard
expressed this mood with emerald green
velvet cape bordered by silver fox.
The asymmetrical draping leads the eye downward
to exaggerate the length of the figure.
Right: For evening, the important tunic
was seen in its most exaggerated form.
Fabric was pleated net,
a material that moves well.



Consider the current "soft" look in fabrics.

Today's woman clothes herself in chiffon and georgette, textured crepes and satins, supple fabrics. She strives for a purely feminine air — in multicolored tweeds, soft-ribbed wools and matelassés, in sheer constructions which use man-made fibers as a scaffolding to give lightness, delicacy and drape.

It seems logical to assume that there will be a demand for a softer interpretation of the figure, a longer, more supple line.

A designer in search of techniques to match the figure transformation with the prevalent fabric trend would do well to hark back to those periods in which suppleness and slimness were emphasized. And it is in the 1930s — the turbulent, thrifty Thirties — that we discover a voluminous textbook of ways and means to achieve the stem-like figure.

For the source-book of design techniques, we have gathered authentic drawings of the Thirties, old leaves culled from the pages of those days, sketches and notes which relate to the transformed figure. They give many clues to what is needed to put together the slim, elongated look.

Here you'll find the bias cut, the key to flattering slenderness, even when nature is at her most uncooperative. Here are old yet new ways of dividing the figure. Tunics, boleros, overblouses and sashes suggest length. Cowls, jutting sleeves or capes emphasize the top of the figure and diminish the hips by optical illusion. The ragged or lengthened hem serves to draw the eye downward.

In these pages there is just an indication of the vast possibilities of this theme. The fashion books of the Thirties, when some of the top designers today were only beginning to make fashion history, are a great compendium of devices for achieving femininity. In the Design Laboratory of the Brooklyn Museum and the design books and advertising files of the great stores, such as Bergdorf Goodman or Henri Bendel, there are treasures for the taking. For those who want to delve further into these years, the sources are close to hand.

The living, breathing force of a new fashion can be drawn from a period, from a country or a culture, from a fabric trend. Here, on these pages, we ask you to inhale deeply of the past. In that nostalgic breath you may find renewed inspiration to meet the rapidly changing demands of today's fashions.

Special acknowledgements are due Mr. Robert Riley of the Brooklyn Museum's Design Laboratory for many suggestions and sketches as well as for making selections from the notebooks of Eddie Mayer in the Museum Collection; also to Bergdorf Goodman Co. and Henri Bendel Inc. for loaning material from their own records of the Thirties.



Augustabernard knew the spiral drape
is an effective figure lengthener.
Then she curbed the straightness with
a wide bow at the bosom,
a flounce around the ankles.
Fabric recommended:
crepe with a soft, supple hand.





Above: In the Thirties, fabrics fell
into natural folds without the interference of
linings and stiffenings.
The soft cowl neck was one inevitable result.
The bias cut was another.
Left: With pleats below the knee,
a free swinging scarf, this print dress takes
the eye off the hip line.





The cutaway was a variation of the ever-present tunic. Natural fabric draping at neckline broadens the shoulder line. Right: The evening look was a naked one, interpreted here in beaded chiffon georgette. Far right: Sinuous cocktail dress traces the figure of the Thirties — subdued bosom, rounded back, long body. Tunic fabric was textured printed lamé.





When the figure grows longer,
the matched ensemble
gets greater attention.
Three-quarter jacket
cuts the body like a tunic.
Fur at neck and wrists
was a familiar Thirties touch.



Madame Vionnet, master designer
of the Thirties, encased the evening figure
in a cocoon of warp-printed fabric.
Down the back went a cascade of
ribbon bows and streamers.
Around the neck fabric lay in natural folds.
Right: Tailored day dress
has soft collar, flowing bow tie,
untailored sleeves for
a softened figure effect.
The fabric was crepe,
the star performer of the Thirties.

1930

SOURCE-BOOK . . . *continued*

1957





Head-hugging hat also adds to the illusion of length. Noteworthy details of this costume are the wide lapels, chiffon gilet, raised waist.





Far left: For minimizing the hips, for a soft bosom line, for general wearing ease, this wool crepe by Vionnet is a masterpiece. Left: Belted swagger coat is in essence a tunic. The slightly raised waist gives great importance to the long line from waist to ankle. Above: Today's interest in the soft blouse reflects a similar attitude of the Thirties. Here a glittering overblouse makes the costume.



Slinky siren gowns
were bare as can be in the Thirties.
Backs were uncovered
almost to the waist, bosoms were low.
Little peplum here
points the long line in back.

Right: One of Lelong's famous simple dresses
cut to cling to the body.
Bias-cut section around the hips dips to
graceful back pleats. The great
sweep of the panel stresses slimness
of the silhouette, adds to the drama.
Left: With two rows of flounces,
this cloque chiffon gown
effects the long-legged look.
Again, the high sash, the dropped bosom.

In the home furnishings field . . .

MAGNIFICENT MARKETING OPPORTUNITY

By ALFRED AUERBACH



Mr. Auerbach is president of Alfred Auerbach Associates, an advertising and public relations agency specializing in home furnishings campaigns.

The past ten years have witnessed a tremendous change in the character of American home furnishings. This change is especially present in furniture, floor coverings, lighting fixtures *and* decorative fabrics. It is a change so profound it almost betokens a revolution in American taste and American habits.

What has caused this change and how deeply rooted is it? The answer lies in many sources. There are new concepts about residential architecture—new concepts about planned communities—new living habits . . . new *casual* suburban characteristics that percolate back into metropolitan centers. The TV set — the buffet dinner — and blue jeans for school wear are all tokens of this new era.

However, let us keep a balanced focus. There are some 47,000,000 private dwellings in this country of which perhaps 10,000,000 have been built since the end of World War II. It follows that while 25% of a marketing program may be addressed to the newer houses, the bulk still is concerned with homes that are anywhere from 15 years to 50 years old.

Hence it's dangerous to say, glibly, present day housing has much larger window expanses . . . or lower ceilings . . . or smaller rooms. These characteristics can accurately be applied to post-war homes, but not to the others. This is one of the basic distinctions between the home furnishings field and fashion . . . the time cycle is much, much slower and the status of the "wardrobe" of the home is so much more prone to be dated by decade . . . not by years . . . than the typical apparel wardrobe.

But the public is sensitive to its surroundings as never before and there is an enormous urge for change and betterment. Manufacturers and retailers continue to face a magnificent marketing opportunity in this field despite the fact that they have already enjoyed an exceptional period as to sales and profits. But the surface of it has only been scratched. The majority of American homes are so poorly furnished and so far out of step with current desires as to provide virtually an unlimited sales outlook.

Producers and retailers of decorative fabrics are in a unique position to exploit the current opportunity.

There are at least three basic justifications for this:



1. *All-silk lampas with floral sprays on parchment-toned ground. By J. H. Thorp.*
2. *Stylized leaf pattern in tight-woven sturdy cotton brocade by Lehman-Connor.*
3. *Needle-point effect richly woven in grey-black-white brocade by Lehman-Connor.*
4. *Persian design in fine cotton drapery or upholstery fabric by J. H. Thorp.*
5. *Geometric motif in all-cotton drapery or upholstery brocade by Lehman-Connor.*
6. *Crisp hand, subtle coloring, in rayon, cotton and mohair damask by F. Schumacher.*

Persian-inspired screen print on cotton fabric takes to either traditional or very modern decor.
F. SCHUMACHER

Sheer Fortisan casements contrast with Schumacher's heavy cotton frisé upholstery in modern traditional living room of Leonard J. Knaster. Both rooms shown on this page are by decorator Barbara Barondess MacLean.

Schumacher's Peruvian linen lends dignity and color to Beverly Hills study of David O. Selznick; lemon yellow draperies set off emerald green upholstery.



1. NEW BUT TRADITIONAL

To the housewife a change of her draperies, curtains, upholstery coverings and bedspreads, offers ***the swiftest, most immediate, most dramatic means*** *of bringing her home into closer harmony with the new image of today's interiors. And it does all this* ***at a relatively modest expenditure.***

2. NEW IN PERFORMANCE

There are so many new performance values in today's fabrics, around which an alert merchant can build his sales pitch. Dimensional stability . . . new finishes . . . new yarns . . . easy-to-care-for constructions . . . sun-resistant . . . color-fastness. We could go on.



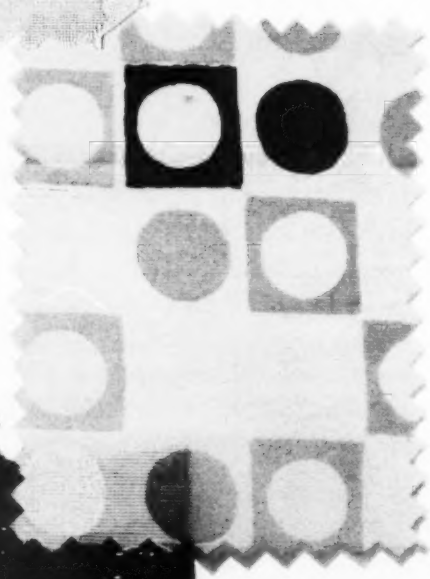
Dramatic sweep of Bouquet Garni from Jack Lenor Larsen unifies hotel apartment by Emily Malino. This screen is print on synthetic or natural fiber fabric.

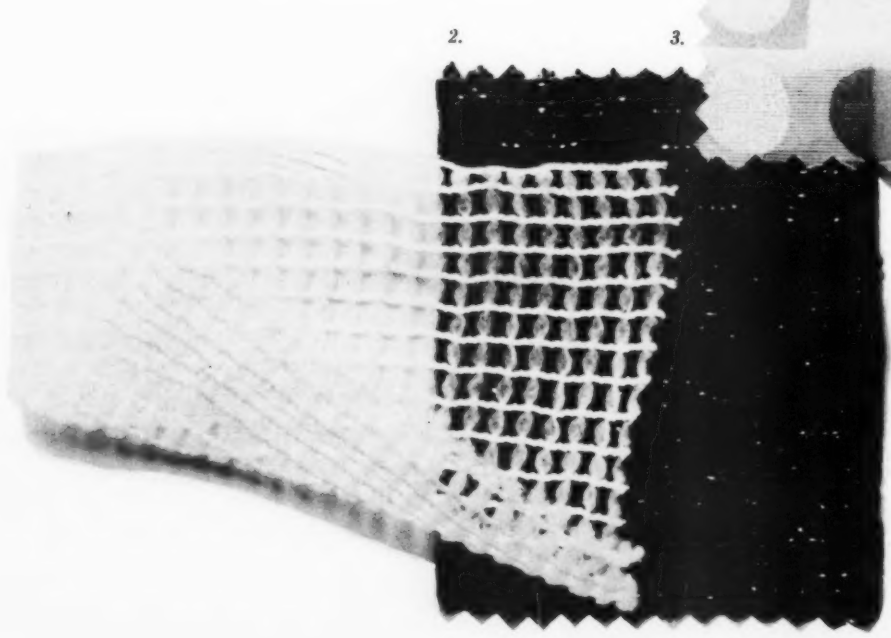
PHOTO AMERICAN BOSCH ARMA CORP.



Fortasaran casement is used by decorator John Stuart Burns in office installation. Fabric resists moisture and stains, is stabilized, flame resistant, moth and mildew proof.

Fortasaran, new casement of Fortisan and a blended yarn of Saran and Dynel.
L. ANTON MAIX



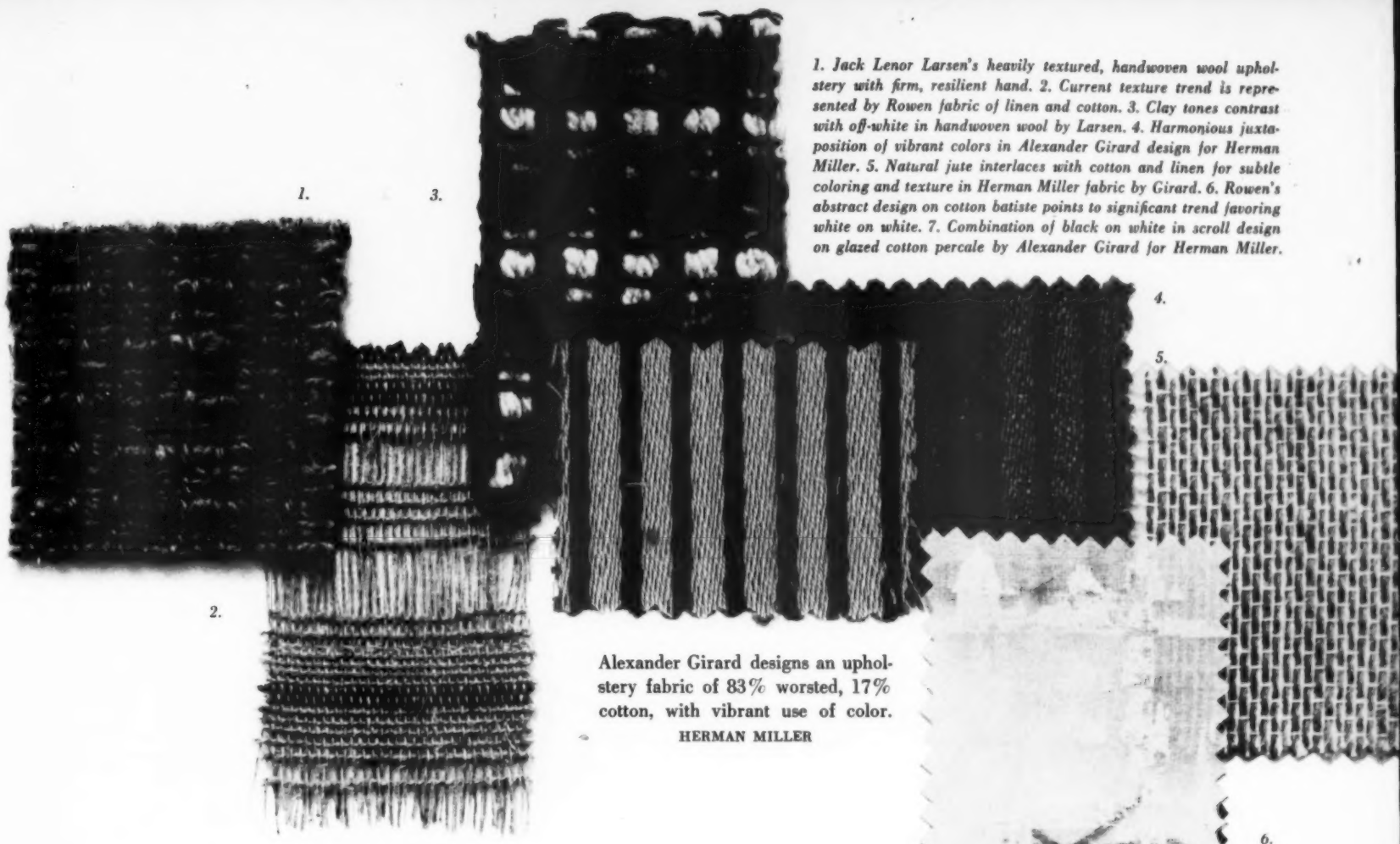


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1. *New Ban-Lon casement of crimped nylon is stretch and shrink resistant, easily washed. By J. H. Thorp.*
2. *Durable metallic yarns add brilliance to contemporary fabrics, such as Malachite. By Larsen.*
3. *Fortisan casement offers beauty and performance. By F. Schumacher.*



1. Jack Lenor Larsen's heavily textured, handwoven wool upholstery with firm, resilient hand. 2. Current texture trend is represented by Rowen fabric of linen and cotton. 3. Clay tones contrast with off-white in handwoven wool by Larsen. 4. Harmonious juxtaposition of vibrant colors in Alexander Girard design for Herman Miller. 5. Natural jute interlaces with cotton and linen for subtle coloring and texture in Herman Miller fabric by Girard. 6. Rowen's abstract design on cotton batiste points to significant trend favoring white on white. 7. Combination of black on white in scroll design on glazed cotton percale by Alexander Girard for Herman Miller.

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Alexander Girard designs an upholstery fabric of 83% worsted, 17% cotton, with vibrant use of color.
HERMAN MILLER

3. NEW AND CONTEMPORARY

The new fabrics look so different! They are so handsome and so varied. At the moment, Far East, Egyptian, Mediterranean colors and motifs are to the fore . . . as are ingenious versions of abstracts. Even the tried and true florals are receiving a rejuvenation treatment. Textures are so divine and so intriguing. The most hardened and cynical buyer concedes today that the showrooms of the mills, the converters, and the jobbers have never shown more glamorous, more eye-compelling collections.
The only problem is to get them before the public quickly and dramatically. Therein lies the challenge . . . it's the retailer's ball!





Above: Long wall of windows is dramatized by the soft drape of Jack Lenor Larsen's goat hair and cotton drapery fabric in conference room by Emily Malino. Left: Windows and upholstery emphasized in treatment by designers Nardin and Radoczy with Knoll textiles in room of builder's exhibit house.

TRENDS

in automobile upholstery fabrics

Every year the relationship between decorative and apparel fabrics and the newest in automobile fabrics grows closer. Here American Fabrics presents a review and projection of current trends.

In recent years there has been a revolution in decorative fabrics. Influenced by European and Oriental design concepts, decorators have been creating effects of lightness and space suited to smaller modern interiors. Fabric trends have followed their lead. The lightweight stretched fabric may prove to be as symbolic of our era as the heavy, draped fabric is of the Victorian. Light, space and the absence of the unnecessary have become all important.

The automobile industry in Detroit is profoundly involved in this trend. The small interior is its particular dominion. In applying modern concepts of fabric designing to its own field it faces a triple problem:

1. To match the forward looking designs of engineering departments with functional, decorative interiors;
2. To find an acceptable formula interpreting new ideas in terms of public taste;
3. To forecast textile trends and create fabrics that will coincide with public taste in two years' time.

It is recognized in Detroit today that a lowest common denominator which meets all requirements often lacks inspiration. Perhaps this is why important textile designers, whose names are known to the public, have been called to work with the automobile industry's specialists in the studios.

Among such designers are Dorothy Liebes, who has worked as a consultant to various corporations; Marian Strengell, who has worked with Chatham for almost three years originating transportation fabrics; Alice Fortuna, who has been with Chrysler's styling staff for three years. The time may not be far away when name designers will break into the auto field as they have done in apparel fabrics.

Automobile textile design requires extraordinary skill. Every fabric is seen through a showcase area of glass, often in a bright light. The fabric must be keyed so brightly it will create a strong impression when juxtaposed with chrome trim, yet it must be so restrained that it looks conservatively elegant. It must combine extreme durability with considerable economy, and it has to conform in a special way to the unfolding trend of public taste.

Formerly, the chemist hampered the stylist; permanent paints could only be produced in certain colors. But today the stylist can get permanence in any color and consequently he can now produce outstanding over-all effects.

From this complex situation two fabric directions are emerging. One is the use of relatively smooth fabrics in a jacquard pattern, often designed in such a way as to give a dimensional effect. The other is toward tweeds or a modification of tweed with nubs or loops. Both jacquards and tweeds frequently include the use of metallic yarns. The aim is to make the fabric harmonize visually with the chrome and paint of the car.

In jacquards the more ample patterns formerly seen are being replaced by smaller, neater effects which are scaled to emphasize the spaciousness of the interior, or by striated patterns which are visually and texturally pleasing. These form a half-way house to tweeds, where the implicit suggestion is one of comfort, friendliness and informality. In the lower-priced lines tweeds are somewhat at a discount because for durability, where price is a factor, jacquards have an edge.

In both tweeds and jacquards there is a natural leaning toward two-tone color treatment that harmonizes with exterior paint work. In the case of metallics, a tone-on-tone effect, such as bronze-on-brown, metallic blue-on-blue, is the most popular treatment.

Metallic yarns are found in colors tailored to body schemes. This is the outcome of some pour-out samples made by Dobeckmun in 1955 which proved very sucessful. Another metallic innovation, credited to Lurex, is multicolored metallic yarn which gives very interesting effects, especially in tweeds.

An exciting experiment, under the tweed influence, is Chrysler's white linen, rayon and acetate fabric with black warp and copper gimp for the Imperial. Another — the extreme of textured fabrics — is Trilok, used by General Motors for the Oldsmobile.

The belief in the power of fine fabrics to aid sales is high in Detroit. There is a search for constructions that can replace vinyl on door panels and for brighter fabrics with metallic yarns for headliners and carpets. It is probable that the next two years will see an influx of conservative color into the lower-priced lines while special high-styled aspects will be developed for the luxury classes. And fabrics will be sparkling and colorful in deeper harmonies ■

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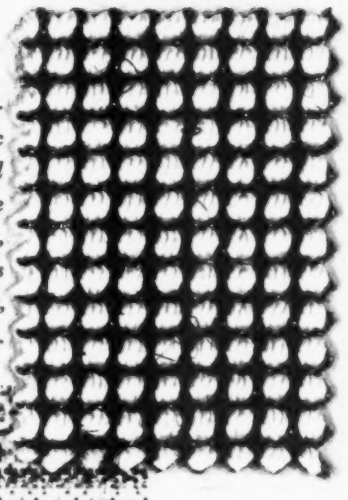
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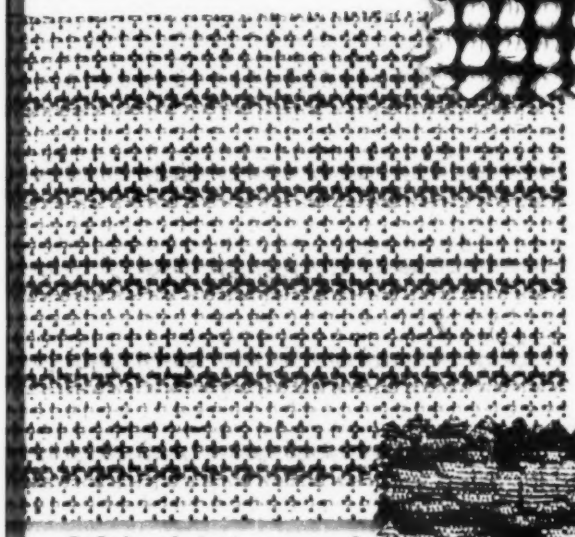
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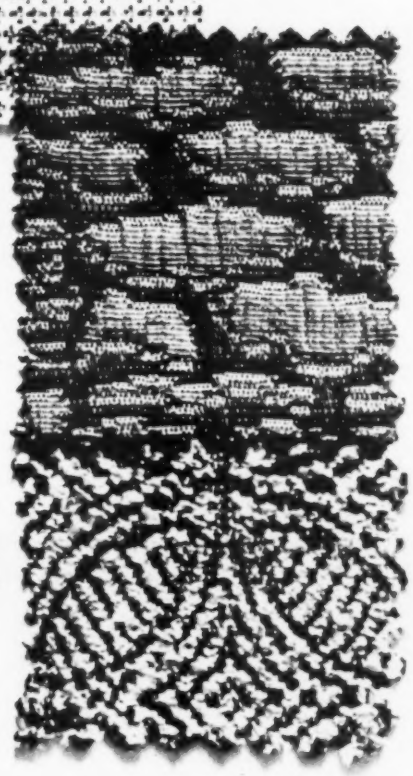
Midas Magic, Imperial's upholstery based on a fabric concept of Dorothy Liebes and interpreted as an automotive fabric by Arthur H. Kibiger, manager, Chrysler Corporation's fabric development department, and STEVENS LINEN.





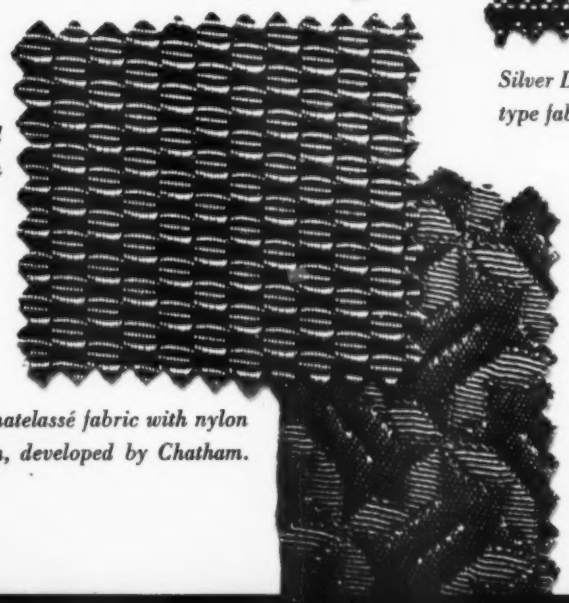
Puff-pleated plastic, rayon and metallic upholstery for Ford's Country Squire and Country Sedan by Hafner Divn. of Burlington

Cloudlike Jacquard fabric for Chevrolet Bel-Air by Craftex

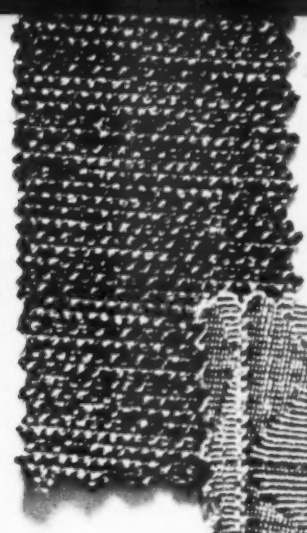


Upholstery for the Plymouth Belvedere Six by Burlington

Development fabric in jacquard dimensional design by Chatham

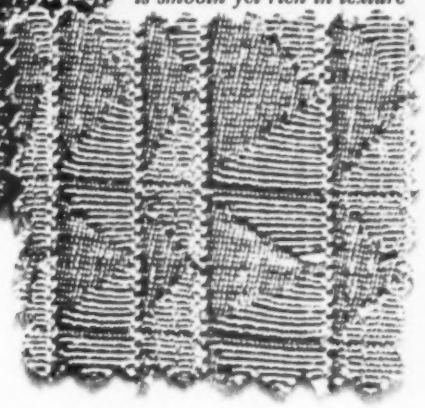


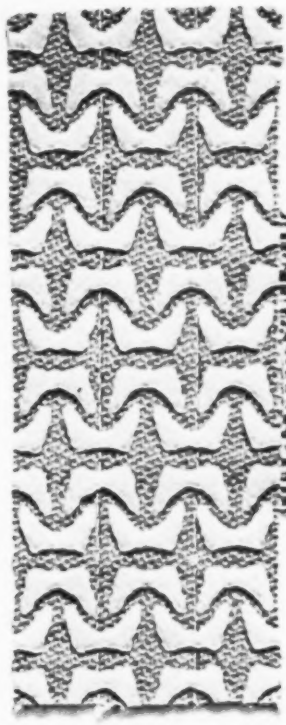
Lincoln's matelassé fabric with nylon construction, developed by Chatham.



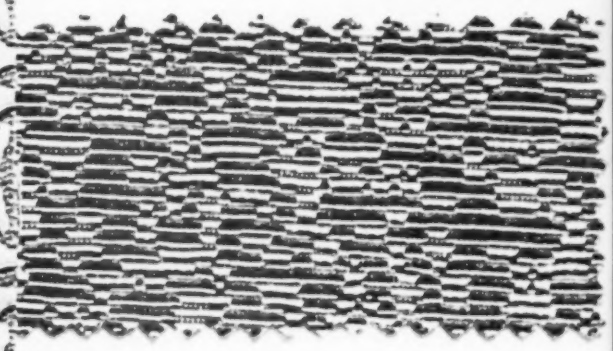
Tweed style with matching Lurex in development fabric by Chatham

Development fabric by Chatham is smooth yet rich in texture



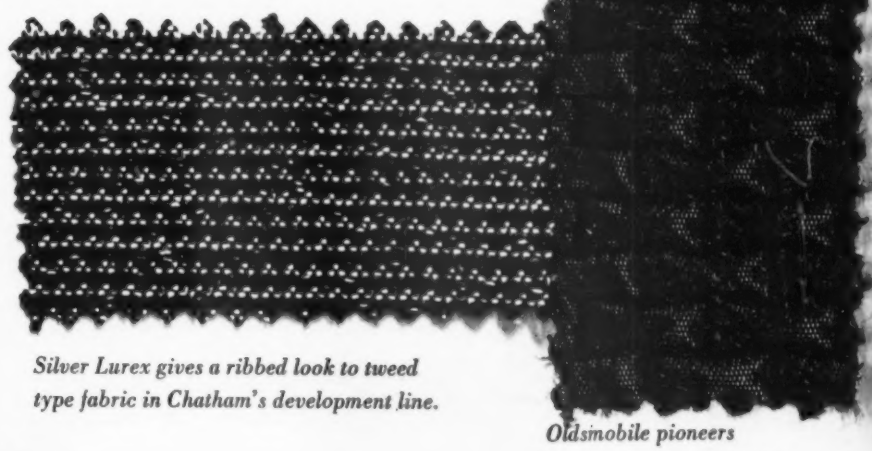


Chrysler New Yorker Town and Country Station Wagon has vinyl, cotton and Lurex fabric in a Chrysler original design by Arthur H. Kibiger



Pontiac Standard Tweed was originated by Laurel





Silver Lurex gives a ribbed look to tweed type fabric in Chatham's development line.

Oldsmobile pioneers the use of Trilok for autos in this nylon face fabric with polyethylene back in unique textured design developed by COLLINS AND AIKMAN



Two important menswear directions . . .

American Fabrics offers worsted jersey to the men's industry as a new and exciting direction for the tailored suit or sports jacket. Here's a fabric which can be used to create new interest and additional sales in the menswear field.

The use of jersey is not a fashion whim; jersey in suits and sports jackets has real performance. It can take its place alongside new and interesting woven fabrics as a leader in the field.

We would emphasize that it is ***a new experience for a man to wear this fabric.*** It has lightness, elasticity and fit, responding to every body movement. It has the comfort of a time-tested favorite suit but it tailors superbly; there are no strained seams. It is truly crease-resistant because it has the big recovery of knitwear . . . and it has an elegance that belongs to this fabric alone.

For illustration of Alexander Shields' tailored jersey suit, turn to page 23.





Sports jacket from Alexander Shields in pebble-textured worsted jersey by JASCO

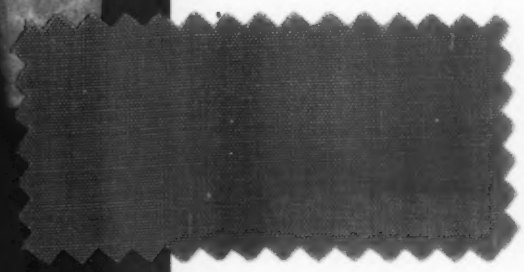
WORSTED JERSEY



Here is a fabric which fits well in the prevailing trend toward natural shades, beige and ecru in silk. Its surface has elegance and appeal for eyes long accustomed to the tweeds and shetlands conventionally used in sports jackets; its hand and texture qualify it to rank among suiting fabrics which possess a clean, worsted hand.

Tussah is a fabric that can successfully follow shantung types which have long been favored and which have had such a strong influence in the textile picture. It has exactly the lightness in wear and resilience to meet men's needs and tastes today.

Used for jackets or suits, tussah can be instrumental in creating wardrobe diversity with the all-important extra sale as a result. Constant revaluation is as necessary for the men's industry as for the women's. Classic fabrics, known favorites sparked with new ideas, can open up promotional possibilities and new merchandising directions.



Crown Colony jacket from F. A. MacCluer in all-silk tussah suiting by KANEBO

SILK TUSSAH



After six days of wear, coat of automatic wash and wear suit is wrinkled, needs extensive pressing to restore neat appearance.

IN MEN'S SUITS

automatic wash and wear



Here, after same coat has been washed and tumble dried, its neat appearance is fully restored without pressing.

Du Pont's Textile Fibers Department, whose research and development work has provided great stimulus to the cooperative efforts of the textile and apparel industries, has now introduced in cooperation with Haspel Brothers the newest development in apparel convenience—"automatic wash and wear."

"Automatic wash and wear" in men's suits makes the modern home dryer virtually a pressing machine. The suits in which it will be introduced to the public can be laundered at home and are ready to wear immediately after drying in tumble dryers with a low temperature setting and cool tumbling cycle. Wrinkles are removed, creases and pleats persist. Removal of wear wrinkles in drying actually renews the sharpness of pleats and creases.

Because automatic wash and wear fills so completely the increasing demand for clothing that retains a neat appearance with little effort for upkeep, it is certain to be applied shortly to a broad range of apparel. It can be applied to any garment — men's, women's or children's — when these three important conditions are met:

1. The fabric must contain 55 to 65 percent or more of Dacron, or 70 to 75 percent or more of Orlon. Specifically, at least 65 percent of Dacron must be present when the balance of the fiber is cotton. There must be 70 percent or more of Orlon when the balance is wool and 75 percent when the balance is rayon. *The proper percentage of the synthetic fiber should be present in each warp and filling thread.*

2. *The garment must be so tailored as to withstand the mechanical agitation of the washing machine and the temperature and tumbling action of the dryer.*

3. *It must be dried for approximately 20 minutes in a tumble dryer with a low temperature setting of about 160°F. followed by a cool tumbling cycle of 5 to 10 minutes. It may also be drip-dried.*

The laundry appliance industry has been quick to realize the potential of automatic wash and wear. Specifications of major brand 1956 models show that many have the proper temperature range and the necessary cool tumbling cycle.

The characteristics of Dacron and Orlon make this development possible. By their ability to recover from wrinkles and retain creases these strong fibers demonstrate what is known as "plastic memory." This property, in the presence of heat, causes the molecules within the fibers to return to the equilibrium position from which they were forced when the fabric wrinkled. The combination of this recovery action and the mechanical action of washing and drying, which reduces friction between the yarns, essentially presses the garment.

TAILORING REQUIREMENTS:

Tailoring for automatic wash and wear requires sleeve heads, shoulder pads, collar canvas, interliners, tapes, linings, zipper tapes and thread that are dimensionally stable to all degrees of moisture. These must be able to withstand pressing during manufacture and the conditions of laundering specified for the garment.

Nylon shoulder pads and interliners and collar canvas of Dacron are recommended. It is necessary that the interliners have a minimum of stretch. Linings, which commonly are of nylon taffeta, must be sewn in securely and tacked at the corners. Because of agitation during laundering, stable thread of nylon or Dacron is recommended.

IMPORTANCE OF CORRECT SEWING:

Careful sewing and fabric handling are necessary to ensure that all thread and fabric stresses are at a minimum. Operators must not overfeed or restrain fabric in sewing.

The finest needles suitable for the particular operation must be used. Tension must be at a minimum, with approximately ten stitches per inch.

Experimentation is recommended to determine the best pressure and heat when the garment is pressed in manufacturing, since these conditions vary with the fabric types.

Easy care properties of these modern fibers and the convenience of modern home laundry equipment are both fully realized by this development. Automatic wash and wear seems to offer a vast potential for the textile and apparel industries, and it can prove a major contribution to the domestic scene ■



Haspel's automatic wash and wear suit is tailored in a machine-washable suiting of 65% Dacron, 25% viscose rayon and 10% mohair, developed by ROSEWOOD FABRICS.

SANITIZED FABRICS

the importance of hygienic additives in finishing

While the value of wrinkle-resistant, moth-, shrink- and other resistant finishes is appreciated by the consumer, the importance of hygienic additives is only beginning to be understood.

The consumer is extremely sensitive to all aspects of personal hygiene. She spends $128,000,000 annually on personal deodorants alone, to say nothing of substantial sums on deodorant soaps, on deodorant dentifrices, lozenges and even gums. She spends millions on dry cleaning. These expenditures have one aim—greater personal cleanliness and health.

With the exception of limited applications (such as shoe insoles), hygienic additives have remained without public recognition. Now, since Sanitized Sales Company was formed for licensing in 1956, their tremendous potential is being demonstrated.

Any additive which inhibits the growth of bacteria will materially assist end-product performance by:

1) *preventing undesirable odor*
2) *prolonging fabric life*
3) *combating mold and mildew.*

The most important aspect of this action is in fighting the multiplication of bacteria which act in many directions. This directly meets the consumer's desire for cleanliness and health; it acts to prevent the development of odor through bacterial decomposition of absorbed perspiration in the fabric; it increases fabric life and combats deterioration because it inhibits the growth of bacteria which are destructive to fibers. Many years of experience by the J. C. Penney Company have demonstrated that shoes with Sanitized linings last longer and that the inner part of the shoe does not become brittle and shrink.

Mushrooming sales in the past few months, since Sanitized goods such as coat linings and lingerie fabrics have been available, have proved the important merchandising implications of these additives. An early contract between Sanitized Sales Company and a converter called for a minimum of one million yards of treated fabric annually. In the first quarter, however, sales reached four million yards and in the first twelve months are likely to reach thirty million.

Sanitized fabrics are being currently offered to the trade by houses such as J. P. Stevens, Springs Mills, Celanese Corporation of Canada, Dubin-Haskell-Jacobson, N. Erlanger Blumgart, William Skinner and others. Manufacturers offering Sanitized fabrics in their line include Stardust (lingerie), Flagg-Utica, General Shoe Corp., Duofold Inc. and S. Rudofker's Sons.

Extension of the market to luggage, surgical supplies, carpeting and rugs and upholstered furniture is anticipated. It is already being used by Chrysler's Dodge Div., by United Van Lines, and by U. S. Rubber.

In order to reap full benefit from the potentialities of hygienic additives it should be emphasized that systematic labeling is desirable, with consumer education programs conducted to ensure identification and instruction at the retail store level.

RETAIL SELLING POINTER

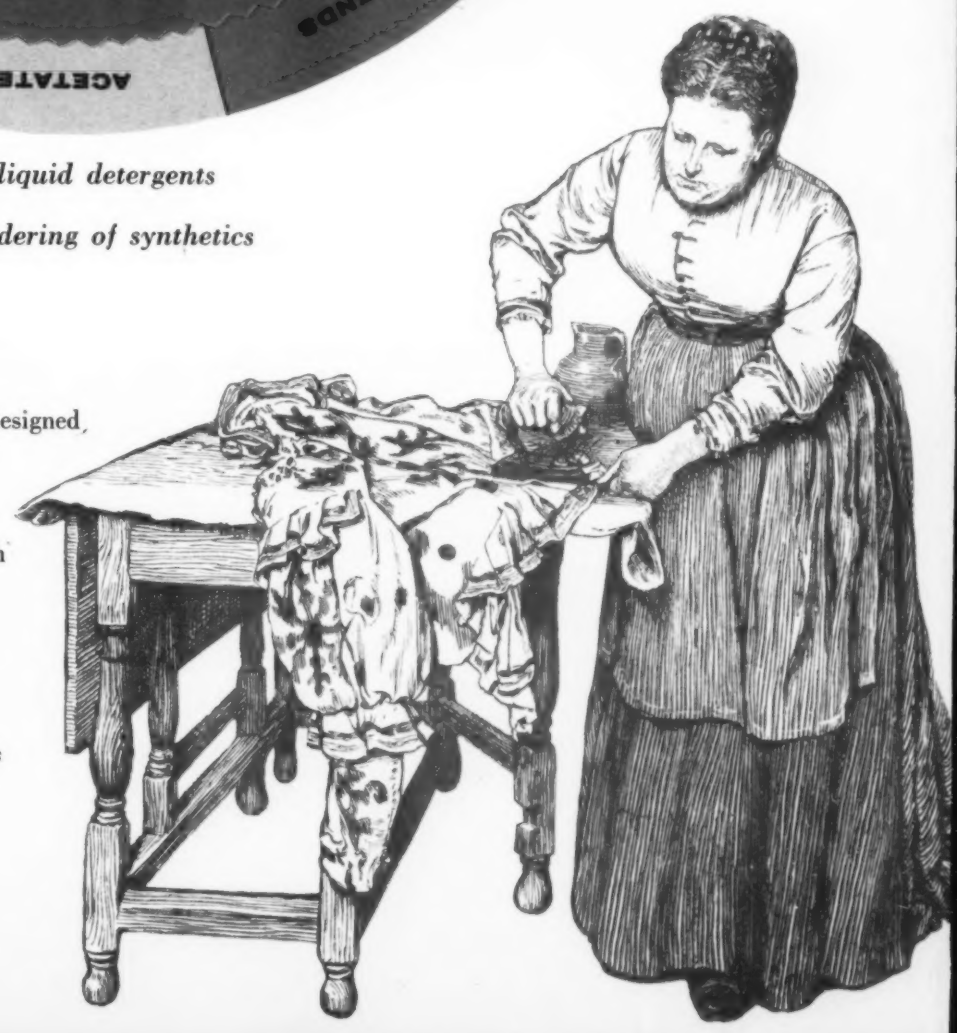


COLD WATER WASH *with liquid detergents*

and tumble drying may revolutionize home laundering of synthetics

Cold water does not soften the synthetic fibers, but with modern liquid detergents it is sufficient to release soil. This is because the fibers are non-absorbent and soil remains mostly on the surface. The Maytag Company has designed an automatic washing machine with cold water setting, slow agitation and spin speeds. Using this setting, filmy stockings, lingerie, pleated blouses and skirts, children's dresses and shirts can be repeatedly washed with little or no ironing. Cashmere-type sweaters, pleated jerseys and light blankets benefit especially from this treatment. Tests show that blouses can take up to twelve washings before ironing is necessary.

The attached chart, designed for use with the new machine, gives precise instructions for the laundering of each textile fiber.



Making white whiter

By Dr. Charles J. Weidmann
Technical Director, Dyestuffs Division, Ciba Company Inc.

In many apparel, decorative and institutional fabrics the quality of white is vital to successful selling, both to the trade and to the consumer. Here the advantages of fluorescent dyes in accenting whiteness are discussed and new developments reported.

Successful merchandising of textiles and other products is frequently connected with a particular quality feature which sets one product apart from others. The development of fluorescent brightening in textile finishing has revealed the limitations of earlier standards of whiteness, and has shown the importance of fabric improvements saleswise. The sparkling whites, brighter pastels and clearer prints obtained by the use of fluorescent brighteners provide the extra qualities that build a strong sales appeal.

The action of fluorescent brighteners is easily understood. In the usual chemical bleaching processes, colored impurities in the fibers are converted to colorless materials or made soluble so that they can be washed out. The effectiveness of the chemical bleach is limited, however, by the durability of the fiber. It is not always possible to remove colored impurities completely without damaging the fibers. In the case of some synthetic fibers, normal coloration is so strongly resistant to chemical bleaching that serious damage results before any appreciable loss of color.

A dye produces color by absorbing light of all wave lengths except that of the color produced. A fluorescent brightener absorbs little or no visible light but utilizes the invisible ultraviolet portion of light energy, converting this to longer wave lengths of visible blue light. Since the residual impurities in fibers are usually yellow in color, the addition of blue light to the reflectance from an undyed surface gives a better spectral balance. The result is improved whiteness.

The traditional method of improving the whiteness of bleached materials was to tint them with a blueing agent. The success of this practice depended on the absorption of yellow light to reduce yellow reflectance, making the surface appear more nearly neutral in shade. But actually this process lowered the level of brightness and resulted in a duller and grayer value. Fluorescent brighteners, on the other hand, increase blue reflectance by ultraviolet conversion and raise the level of brightness and whiteness.

Although the introduction of fluorescent brighteners to the textile industry has taken place only during the last few years, research work on these products has extended over two decades. Ciba Company was one of the first concerns to undertake extensive work in this field and took an early lead in making these products available for practical use. Their Uvitex range of brighteners is being continually improved and extended through further research.

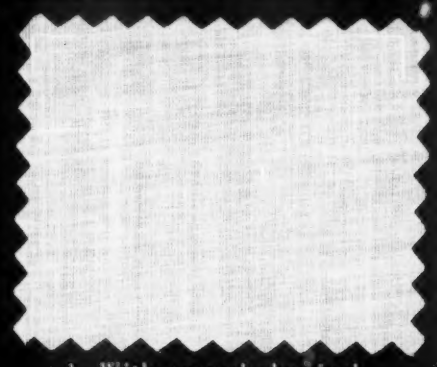
At the present stage of development, fluorescent brighteners offer a wide choice of effects. Products are available to yield completely neutral whites, or those with reddish or greenish casts. Some textile brighteners are effective only on specific fibers while others produce good effects on several fibers. There is no universal brightener that can be used on all materials. However, one of Ciba's newest products, Uvitex ER,® is effective on such varied fibers as Dacron, cotton, acetate and nylon. Its use in a Dacron and cotton fabric is illustrated opposite.

Application of fluorescent brighteners to textiles requires no special method of processing. Brighteners are applied similarly to direct dyes in some respects, but they are much more versatile in regard to conditions for application. In many cases no extra processing step is involved, as products are available that can be applied during other operations, such as bleaching, scouring, rinsing, resin treating, discharge printing or dyeing.

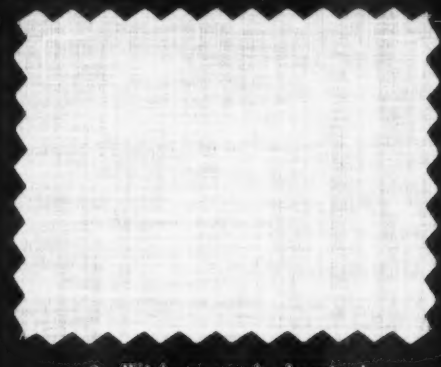
Fluorescent brighteners are now available for use not only on textile fibers, but also on such materials as paper, furs, leather, lacquers and plastics. Large quantities are used with detergents to improve the whiteness of laundered articles. A remarkable feature of these products is the extremely small amount required. In some instances as little brightener as one part per million in a treating bath is all that is necessary to give the desired effect.

Fluorescent brighteners are of value not only for all-white fabrics and other materials, but also for dyeing in pastel shades as well. They give added brightness and clarity to pastel dyeings and sharper, clearer color contrasts to textile prints. Their ability to enhance the color beauty of all these fabric types gives impetus to successful merchandising ■

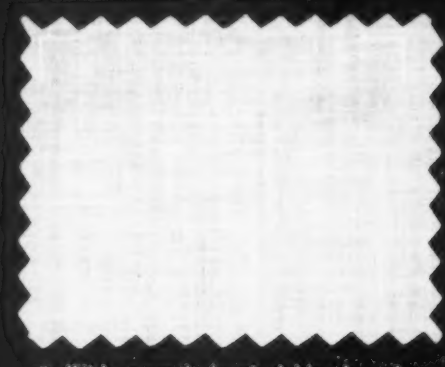
Shirting fabric of 65% Dacron and 35% cotton from SPRINGS MILLS



1. With normal chemical bleach and no after treatment.



2. With normal chemical bleach and afterward blued.



3. With normal chemical bleach and after-treated with Uvitex ER Conc.

Schematic explanation of how fluorescent brighteners work

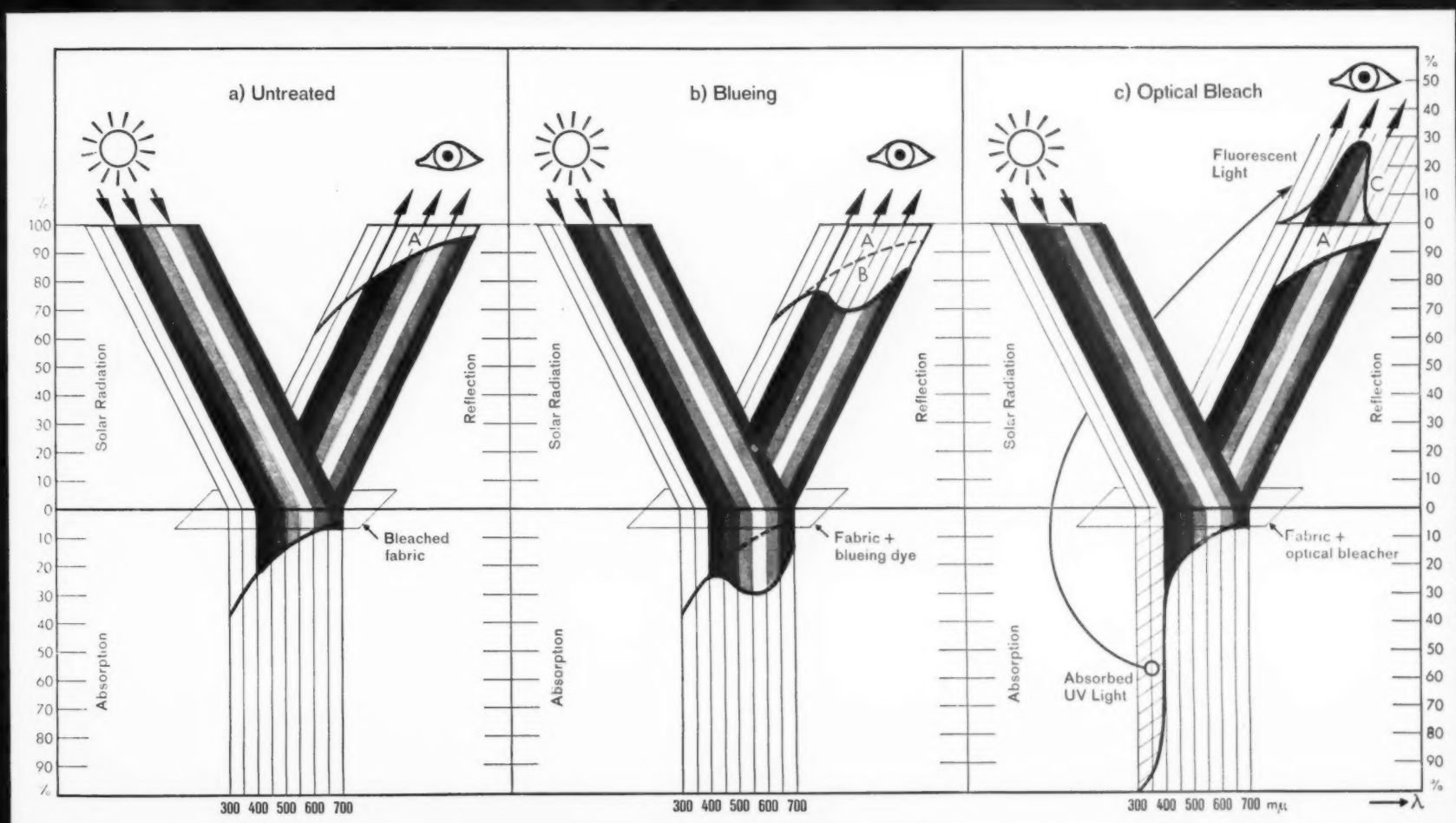


Figure *a* analytically illustrates sunlight being reflected from the ordinary white surface of the first fabric. The visible (white light separable into all colors) and ultraviolet portions of solar radiation descend at left and strike the white surface at the O-axis line. Part of the light energy is absorbed (below the O axis) and the balance is reflected to observer at upper right. Loss at *A* equals absorption and, being normally greater in violet-blue range, results in a reddish cast. A perfect white would reflect all the light energy in the visible range.

Figure *b* illustrates the effect when sunlight strikes second fabric which has been treated with blueing. Addition of blue decreases yellow and red reflectance, bringing it closer to the blue level for a better balanced or whiter appearance.

Figure *c* analyzes the effect of light being reflected from the third fabric which has been treated with fluorescent brightener. The brightener generates blue light from *C*, ultraviolet radiation, adding to normal reflectance to yield a brighter blue-white.

NEW TEXTILES FOR INDUSTRY

In its new industrial fabric development program, Celanese Corporation of America will link basic research and selling to provide an integrated technical service to all industrial users.

Dr. Tesi of Celanese has pointed out that although the production of textiles is generally called an art rather than a science, textile fibers are true engineering materials. They are the flexible beams from which larger structures—yarns and cloth—are built. Each fiber has its own tensile strength and toughness, resilience and resistance, absorbency and so on. The so-called art of the textile technologist is to build, from the various materials at his disposal, a structure which will function in perfect accord with the requirements of the application.

To do this is less simple than might appear. This is engineering with microscopic dimensions and with rivets which may be no larger than molecules. A filament yarn may contain hundreds of strands, and when stress is applied to the yarn each individual strand reacts in accordance with its material, shape, diameter, elasticity, friction with other fibers and so forth. In the case of spun yarns and blends, the situation is even more complex.

In the engineering of the finished textile, the effects of one yarn on another, of yarn weights and tensions, of impregnation with materials used in finishing and, in some cases, of heat setting must all be taken into consideration.

While fabrics are structures in an engineering sense, the behavior of a finished fabric may be, and often is, different from the designer's expectations based on calculations of the inherent properties of the fibers in it. This is why not only basic research but technical development and know-how are all-important in creating fabrics that will perform in an application.

Because it is imperative to know exactly what a fiber will do in practice, the industrial sales department of Celanese Corporation believes that a special selling psychology is necessary in the industrial market.

What is this special psychology?

It may be defined primarily as a development psychology. Every man on the selling team must be able to visualize the application of the chemical and physical properties of a given fiber to the user's needs. This requires the salesman to look at fibers as engineering materials and to know their properties well in precise engineering terms.

The sales effort should be both imaginative and backed by a broad knowledge of the market and its processing and distribution channels. Not only must there be a different psychology at the level of the salesman, but development thinking must also pervade every phase of the total marketing effort—merchandising, sales promotion, advertising.

How has Celanese Corporation mustered its forces to launch this new sales effort?

First, with an entirely separate selling organization. Industrial selling is low pressure. The main objective is to demonstrate the suitability of a fiber for an application all the way down the chain of processing and distribution of the product. A national force of field salesmen has been organized to screen the whole of industry for applications suited to Celanese fibers. This force is backed by a group of sales development engineers trained in specific industry areas—such as those of mechanical rubber goods, cigarette filters, nonwoven fabrics and battings, etc. These men go out with the technical field salesmen into customers' plants and they also act as liaison with the Application and Product Devel-

CELANESE

INDUSTRIAL FIBERS

PROPERTIES

ACETATE

Thermal softening point — approximately 190°C.
Fusing point — approximately 260°C.
Moisture regain at 65% r.h. 70°F. — 6.5%
Moisture regain at 100% r.h. 70°F. — 18.0%
Dimensional changes in fiber immersed
in water to equilibrium — plus 1% in length
— plus 10% in diameter

Special Advantages:

Higher electro-resistivity especially at high relative humidities
High order of dimensional stability, good chemical stability
High natural resistance to microbiological attack
Acetate will fuse or bond with use of solvents or heat
Low cost

FORTISAN

Tenacity in grms./denier — 70
Wet strength as percentage of dry — 80-85%
Elongation percentage of wet and dry — 6.0%
Loop strength — 50% of yarn strength
Specific gravity — 1.52
Modulus of elasticity — 4.3 million p.s.i.
Moisture regain at 65% r.h. at 70°F. — 10.6%

Special Advantages:

A light (30 to 300 denier) yarn with following properties:
Extremely high modulus of elasticity
Excellent dimensional stability under varying conditions
Extremely high strength-to-weight ratio

FORTISAN-36

Tenacity in grms./denier — Min. 8.0, actual approx. 8.5
Wet strength as percentage of dry — 60-70%
Elongation percentage — wet or dry — 6.2%
Loop strength — 50% of yarn strength
Specific gravity — 1.52
Modulus of elasticity — 4.83 million p.s.i.
Moisture regain at 65% r.h. at 70°F. — 9.6%

Special Advantages:

A heavy (270 to 3200 denier) yarn with following properties:
Extremely high modulus of elasticity
Excellent dimensional stability under varying (sp.) conditions
Extremely high strength-to-weight ratio

ARNEL
TRIACETATE

Strength and elongation — close to that of acetate yarns
Microbiological attack — Sixty-day burial test showed
insignificant effect, while cotton was destroyed.
Softening point — approx. 190°C.; with
heat treating*, above 250°C.
Moisture regain at 65% r.h. at 70°F. — 3.2%
Electro-resistivity of fabrics** —
Arnel taffeta, not heat treated — 157 million megohms
Arnel taffeta, heat treated — 430-492 million megohms

Special Advantages:

Heat endurance
Resistance to microbiological attack
Extremely high electro-resistivity
Low moisture regain

PRESENT USES	POTENTIAL USES
Acetate Staple:	*Acetate Staple:*
Sleeping bags, extender for nylon fish nets	Disposable air filters
Vinyl laminate backing in automotive side panels	Carburetor air filters
Plastic laminate surfacing mat	Flexible thermal insulation mats
Air filters, liquid filters	Industrial felts
	Milk filters
Acetate Filament:	*Acetate Tow:*
Wire covering, cable wrap tape	Electrical cable filler
Magnetic coil winding	
Electrical pressure-sensitive tape	
Acetate Tow:	
Cigarette filters	
Low stretch tent webbing	Parachute cloth
Electrical core thread	Light tarpaulins and covers, including translucents
Surveyor's tape	Offset printers' blankets
Nonwoven venetian blind tape	Vinyl-coated yarn for spindle tapes
Flare parachute cloth	and for nonwoven venetian blind tapes
Medical bandages	
Low stretch tent webbing	Combined with cotton for lighter and stronger ducks,
Vinyl laminated reinforcement	proofed ducks, colored ducks and lighter sports
V-belts	and work garments
Knitted radiator hose	Rigid plastic laminates
High pressure braided hose	Warp for surveyor's tapes
Wrapped hose (fueling hose, o.s. & d. hose)	Warp for spindle tapes
Knitted garden hose	Direct spun yarns
Packaging tapes	Tire breaker fabrics
Paper reinforcements	Diaphragm fabrics
Sleeping bags	Electrical insulation
Laundry press pads	Pressure-sensitive electrical tapes (heat-enduring tapes)
Laundry pad warps (spun yarn)	Cable wrap tapes
	Sand bags
	Dust-collector bags

**Heat treating (not heat setting) substantially increases electro-resistivity, also dimensional stability to setting, laundering, heat and steam pressing of fabric.*

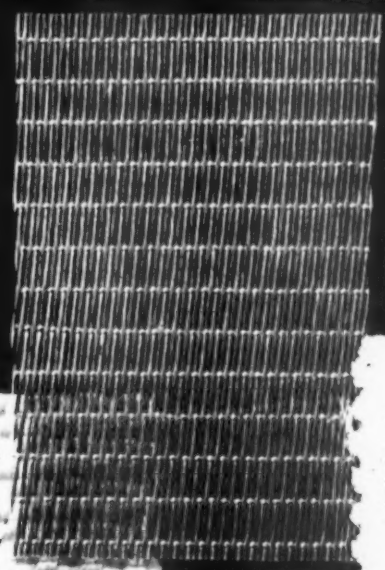
***Pressure-sensitive tape fabric 200 x 65 taffeta of 75-denier warp and 150-denier filling, specially scoured,*

OPPOSITE:

A selection of fabrics illustrating the wide diversity of applications for Celanese yarns in the industrial field.

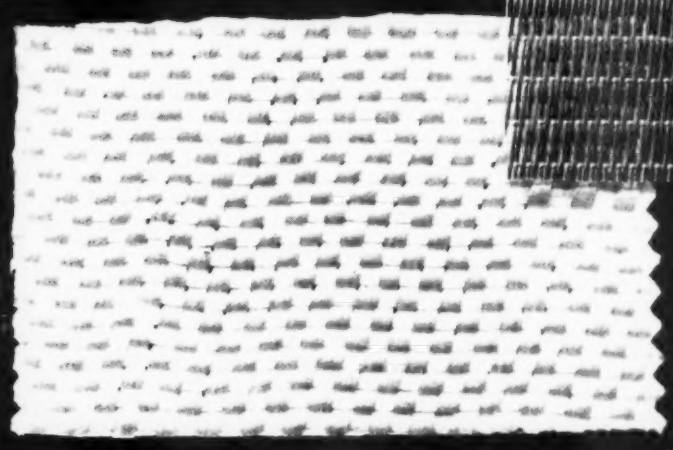
All-Arnel pressure-sensitive tape fabric for electrical applications has resistivity of approximately 450 million megohms when heat treated. By CELANESE CORPORATION

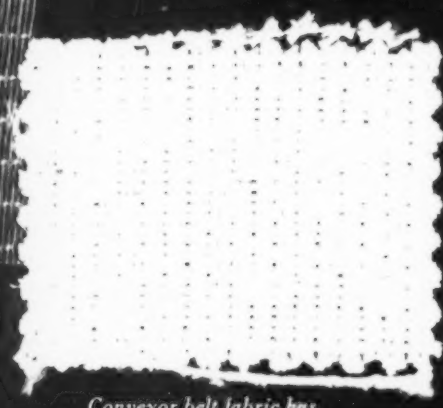




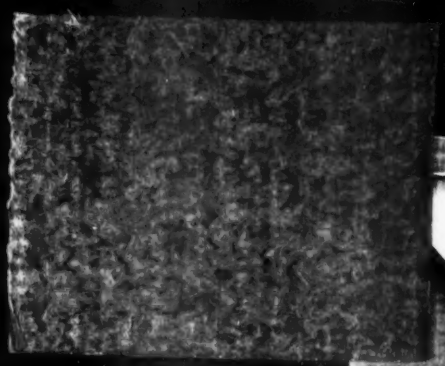
Reinforcement fabric of Fortisan-36 for use in oil suction and discharge hoses, tires and V-belts. Woven by the BIBB MANUFACTURING CO.

Fabric for laminating with plastic is woven of 1600-denier, low-twist Fortisan-36 yarn, offers ease of handling and high strength. By WELLINGTON SEARS COMPANY

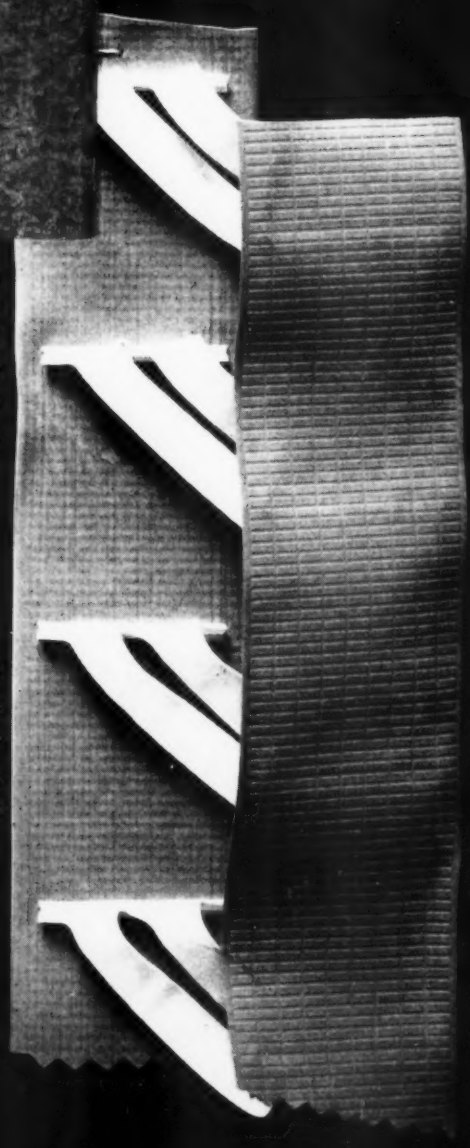




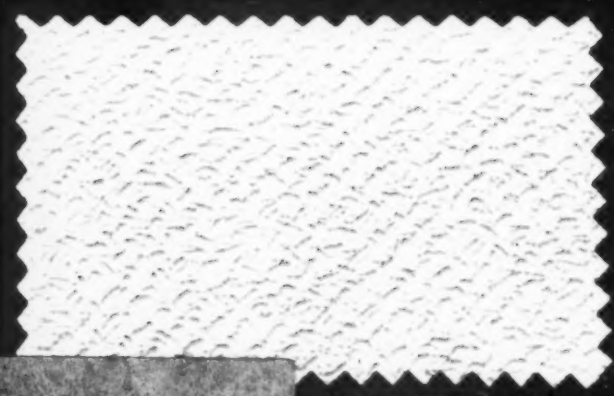
Conveyor belt fabric has warp of Fortisan-36 and cotton filling for high strength, durability and wear. Woven by GEORGIA DUCK & CORDAGE CO.

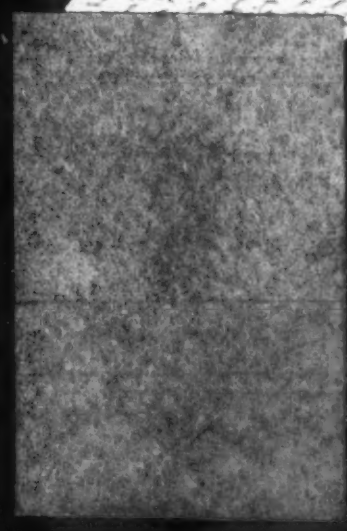


A bale wrapping resistant to moisture, oil and dust, reinforced with Fortisan-36 yarn for strength and flexibility. By GLAS-KRAFT INC.



Reinforced venetian blind tape of vinyl contains 90-denier Fortisan warp for longitudinal strength. Made by HUNTER-DOUGLAS





Outdoor tarpaulin fabric, to be coated with Bakelite or other materials, is woven of all-Fortisan-36 for high tear strength. By CALLAWAY MILLS

A sealing tape for cartons and packages, reinforced with Fortisan-36 yarn diagonally and longitudinally for greater strength. By MC LAURIN-ANGIER CO.

opment Laboratories at Charlotte, N. C., when these facilities are needed to solve a customer's problem or to develop a needed product. Through the Application and Product Development Laboratories the Celanese broad research programs can be drawn upon when needed.

What is hoped for from this program?

Specifically, increased sales and new markets appropriate for the Celanese products—acetate, Arnel, Fortisan and Fortisan-36. The program is to establish these fibers as industrial materials. It is also felt that when engineering-trained market specialists get together with industry's materials engineers, new end uses will be developed.

In finding new outlets for its products, Celanese will make a contribution to the textile industry by broadening its markets. The new directions fiber utilization can take through this development effort will increase the role of textiles in industry and benefit both fiber producer and weaver.

ARNEL IS PROVING ITS WORTH AT INDUSTRIAL "HEARING"

Gaining acceptance by industry for a new fiber is no small task. But in a little more than a year of concentrated effort, Arnel, the triacetate fiber of Celanese Corporation of America, is making positive strides toward proving itself a responsible member of that fraternity of fibers on which industry relies.

The first step for any fiber is, of course, careful evaluation in the laboratory. But the real test comes in the field trials when the fiber must reveal its true properties under actual end use conditions. The next step is equally as important for a new fiber product as the manufacture of the material itself. This step is establishment of distribution channels.

One of the properties of Arnel, for instance, is its extremely high heat resistance. It retains 100 percent tenacity when exposed to 150° C. for 50 hours. Undoubtedly, companies now processing asbestos yarns are shipping their product for end uses where Arnel would be suitable, but these asbestos yarn manufacturers do not have suitable processing equipment for Arnel. On the other hand, those yarn manufacturers accustomed to processing synthetic organic fibers fail to contact end users where the special properties of Arnel would be required.

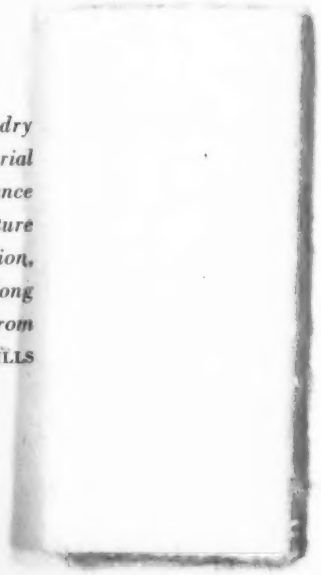
In the case of Arnel applications for electrical tapes now using glass filament, the channels of distribution also present a problem. While Arnel is not competitive with certain inorganic fibers on a price-per-pound basis, it is competitive on a price-per-unit volume basis where equal thickness in an electrical insulation fabric would be desired. But weavers of glass, who have the trade for these tapes, do not have suitable looms for weaving Arnel, and organic synthetic weavers do not yet have customers for electrical tape.

In spite of distribution problems, Arnel is hitting the commercial market in the laundry field with 100 percent flannels for laundry pads. Spun fabrics with Arnel warp and various sliver filling are giving longer life to these pads because of the heat-resistant quality and low moisture absorption of Arnel.

A 12-week burial test has proved, beyond doubt, Arnel's resistance to rotting and fungicidal attack. In such tests, while cotton was destroyed within a few days, Arnel showed no significant damage after the full 12-week trial. At the present time, the U. S. Army Corps of Engineers is conducting long-term field tests in the Canal Zone on raw Arnel fabric sand bags that have no fungicidal finishes. Exposure time is now approaching one year with no significant indication of rotting attack or attack by insects or termites.

The thermoplastic properties of Arnel are quite outstanding, and particularly significant in non-woven and in fused-edge tape applications. Currently, millions of yards of glass fiber tapes are woven on narrow looms at very high cost because of the inefficiencies of narrow fabric weaving. It is felt that these same tapes can be made by weaving broad fabrics using glass fiber warps and Arnel fillings. The tape will then be heat slit from broad fabric and the edges fused during the process. Of course, the heat resistance of Arnel will not be sufficient for all applications for glass fiber tape.

As times goes by, distribution hurdles will be overcome, either by processors of inorganic fibers installing equipment to process Arnel or by the regular spinners, throwsters and weavers of synthetic organic fibers broadening their distribution in these special industrial areas, and Arnel's place in the industrial field will continue to grow.

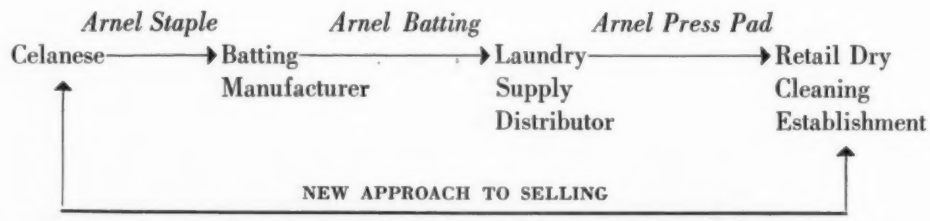


Arnel laundry press pad material has heat resistance and low moisture absorption, giving long life. From TROY BLANKET MILLS

INDUSTRIAL SELLING: A CASE HISTORY

This is how the new industrial selling program at Celanese works. The distribution pattern for a certain non-woven Arnel press pad used in the dry cleaning field looks like this:

NORMAL COMMUNICATION CHANNELS



Under the usual system, Celanese would try to sell the batting manufacturer, but it would probably be a hard job to convince him to use Arnel in the press pad. This particular end use was initiated by a Celanese technical field salesman who contacted a laundry supply distributor and found the need for an improved press pad. The Arnel press pad batting was developed in Celanese's pilot plant and presented to the batting manufacturer as a new product for which a market already existed. This is selling by bypassing the primary customer and "pulling" him, rather than going to him and "pushing."



Finished by conventional method . . . nylon and cotton auto fabric backed by latex.

a new compacting machine gives

SHRINKAGE CONTROL, IMPROVED TEXTURE

to a wide range of fabrics



Finished by compacting method . . . same fabric is improved in texture, shrink-proof.

At the annual meeting of the Textile Research Institute earlier this year, Dr. Walter J. Hamburger and Dr. Kenneth R. Fox of Fabric Research Laboratories formally introduced the compacting machine. Because it is inexpensive in cost and operation and promises to be applicable to many different types of fabric, the compactor is a vital addition to the tools of the fabric finisher.

The compacting process was no hit-or-miss accident. It was developed by a thorough research program directed to the determination of the mechanism of shrinkage, initially in knit goods and subsequently broadened to include all types of fabrics. Months of research led to the conclusion that if the basic causes of shrinkage could be eliminated mechanically as part of the finishing process, no significant increase in shrinkage would occur during further washing. It was believed that a machine could be developed which would, as part of the finishing process, increase yarn diameter and relax residual strains (strains caused during processing when a fabric is stretched) by rearrangement of the elements of the yarn and fabric structure. It remained to develop the machine.

The first compacting machine was a result of the combined efforts of Fabric Research Laboratories, Inc., and Richard R. Walton, a private inventor in Boston. Working in conjunction with the Laboratories, Walton was able to build a machine based on the theories developed by the research program. This first laboratory compacting machine (a 12-inch model) was a startling success and is still used for demonstration purposes.

The principle of compacting can practically be seen if one takes a 12-inch piece of rope and, gripping it at each end, pushes toward the middle. Obviously, the whole rope buckles and no change is made in the structure of the rope. However, if the hands are placed on the rope a quarter of an inch apart and the rope is pushed, a lengthwise shortening of the rope will occur while its diameter is increased. In essence this is what the compacting machine does mechanically. It must be realized. however, that in a production machine there are provisions for varying roll and plate settings, roll surfaces, preconditioning of fabrics, drying, etc. The compacting machine can be adjusted to allow the compacting of fabrics from cotton print cloth to heavy carpeting.

Tests run on the 12-inch compacting machine proved very encouraging. Not only were fabrics and yarns compacted to the "less than one percent shrinkage guaranteed" state, but better surface effects were discovered than were expected. A 24-inch model was then built which gave an equally promising performance.

PRODUCTION UNIT:

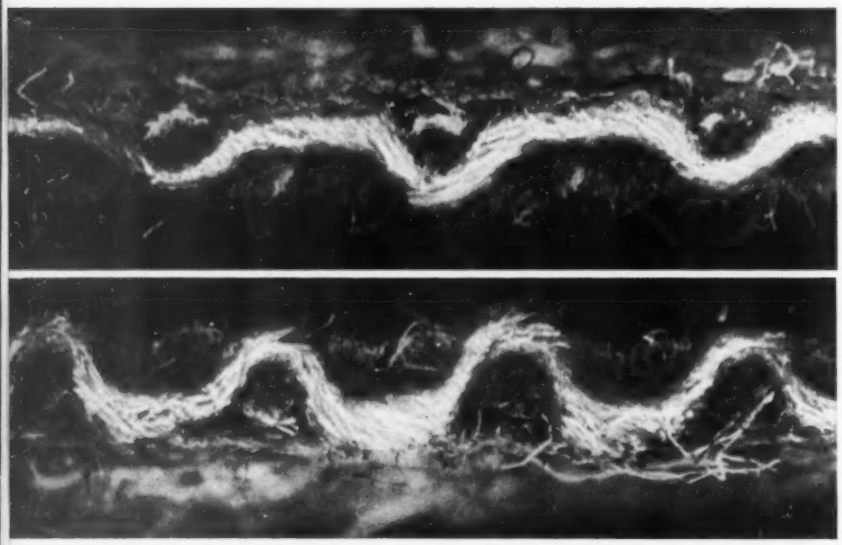
Results were so impressive that Riggs & Lombard, Inc., manufacturers of textile machinery in Lowell, Massachusetts, were contacted to help engineer and develop a 66-inch production machine. This unit was built by Riggs & Lombard and installed at Fabric Research Laboratories, where it has been in operation for over a year and a half. The basic mechanism is similar to the 12-inch unit, but several accessories have been added. The next step was to design and construct a production unit with a particular plant installation in mind. A 72-inch production machine with simplified motions and greatly improved appearance was built, and there are now compacting machines in the production lines of several mills. They are installed in direct line with other finishing machines and occupy relatively little floor space, the 72-inch machine being 13 feet in width and 5 feet in depth.

As previously noted, the original intention of Fabric Research Laboratories was to develop a *mechanical* process

which would economically stabilize *all* fabrics against residual shrinkage better than current methods. In the development of the process it has been found that shrinkage reduction is not the only significant aspect of the compacting process' capabilities. This was realized long before the machine was formally introduced to the textile industry, but since that time more and more interesting results of compacting have been developed.

The compacting process not only stabilizes against shrinkage, but creates unforeseen improvements in the basic structures of woven and nonwoven fabrics and yarns. Even now it is felt that the potentialities of compacting have barely been developed.

In compressing the fabric warpwise and allowing it to expand at the same time, the basic weave is enhanced, yielding a three-dimensional effect. Wool becomes loftier, fuller and takes on a better hand. Nubby fabrics become nubbier. Woven patterns are revealed in bold relief, in some instances taking on the appearance of heavy brocades. It is emphasized that compacting can in many instances serve several finishing functions *while simultaneously providing shrinkage reduction.*



Comparison between cross section of fabric above and compacted fabric below reveals increase of warp crimp, yarn size and fabric thickness achieved by compacting.

RAYONS, SYNTHETICS, AND BLENDS:

Compacting has been hailed as the most tremendous advance in years for the synthetic fabrics industry. While there is much truth in this statement, it precludes by implication the value of compacting to other phases of the textile industry and neglects certain factors unrecognized by the synthetic fabrics industry. True, it is now possible through compacting to control shrinkage of synthetic fabrics and synthetic blend fabrics. However, before the consumer can expect to buy permanently shrink-resistant synthetic fabrics of good quality, the synthetic fabrics industry must adjust to changes in present methods of limiting shrinkage and accept some degree of working loss in processing, as the cotton industry did almost twenty years ago.

There has been much activity in the preshrinking of synthetic blended fabrics. Most of this activity has been confined to the use of chemicals such as resin and fiber-modifying agents. There are limitations to these methods of preshrinkage both in processing and in long-range dependability of results. This is particularly true in the wash-and-wear field where ironing is not used to restore dimensions previously taken care of in a damp-pressing operation.

By combining chemicals and the compacting process, an all-rayon fabric can be processed that has even better physical properties than those achieved by a full chemical finish. The fabric has good hand and wrinkle resistance, an excellent cover, fullness of structure, and is shrink-resistant. Successful compacting has been performed on a wide range of fabrics such as rayon linen; flannel and tropical suitings of rayon-acetate blends; gabardine suitings of rayon, nylon, and Dacron blends; check suitings of Dynel, Orlon, acetate, and rayon blends; twill suitings of rayon and Dacron blends; and work twills of Orlon and rayon blends. After washing and tumble drying, shrinkage was less than one percent in all fabrics. A sample of sport-coating material made entirely of nonfelting fibers which became quite "wool-like" in appearance and hand after compacting has been found to be of particular interest to the synthetic fabric mills.

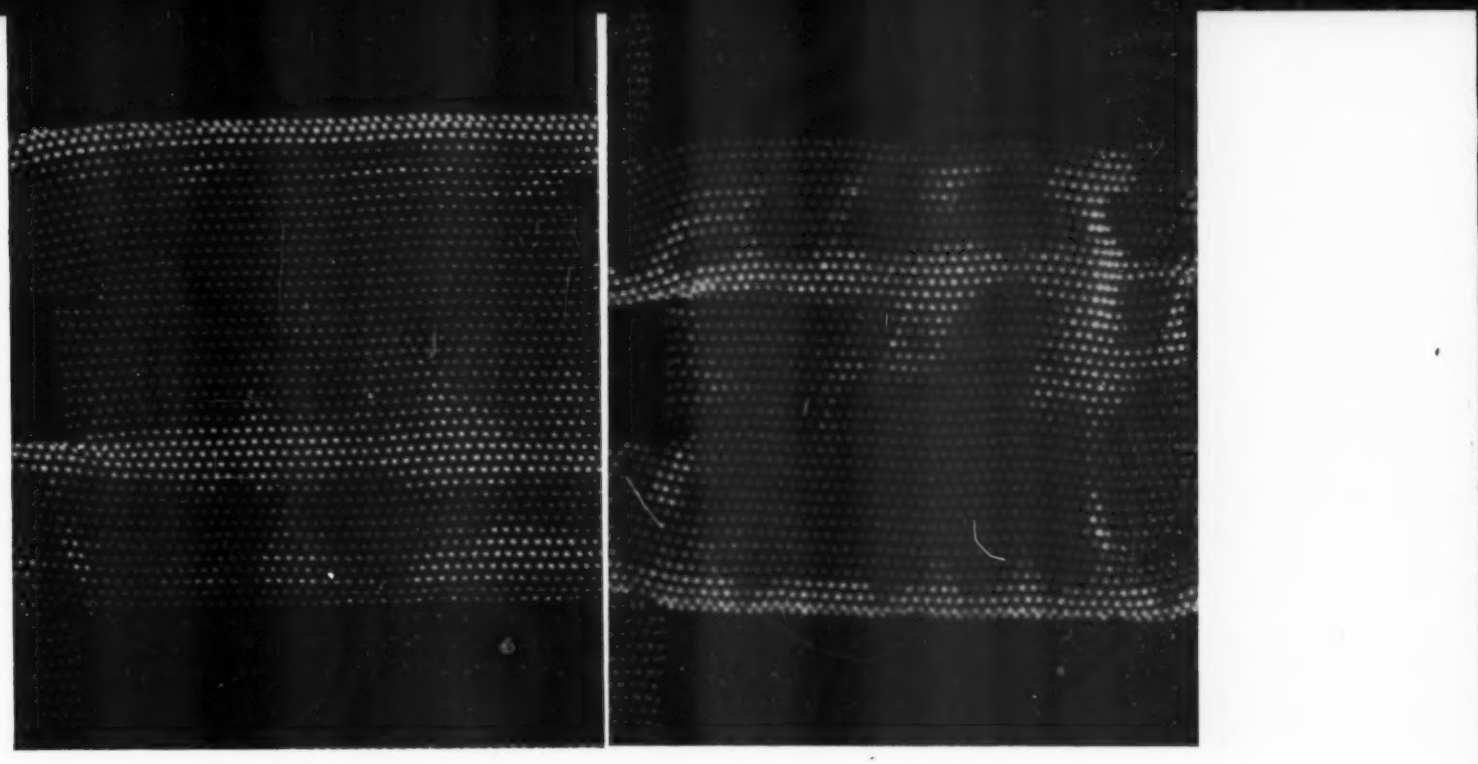
While compacting cannot solve all problems of the synthetic fabric producers, it is a solution to one of their biggest problems and a partial answer to several others.

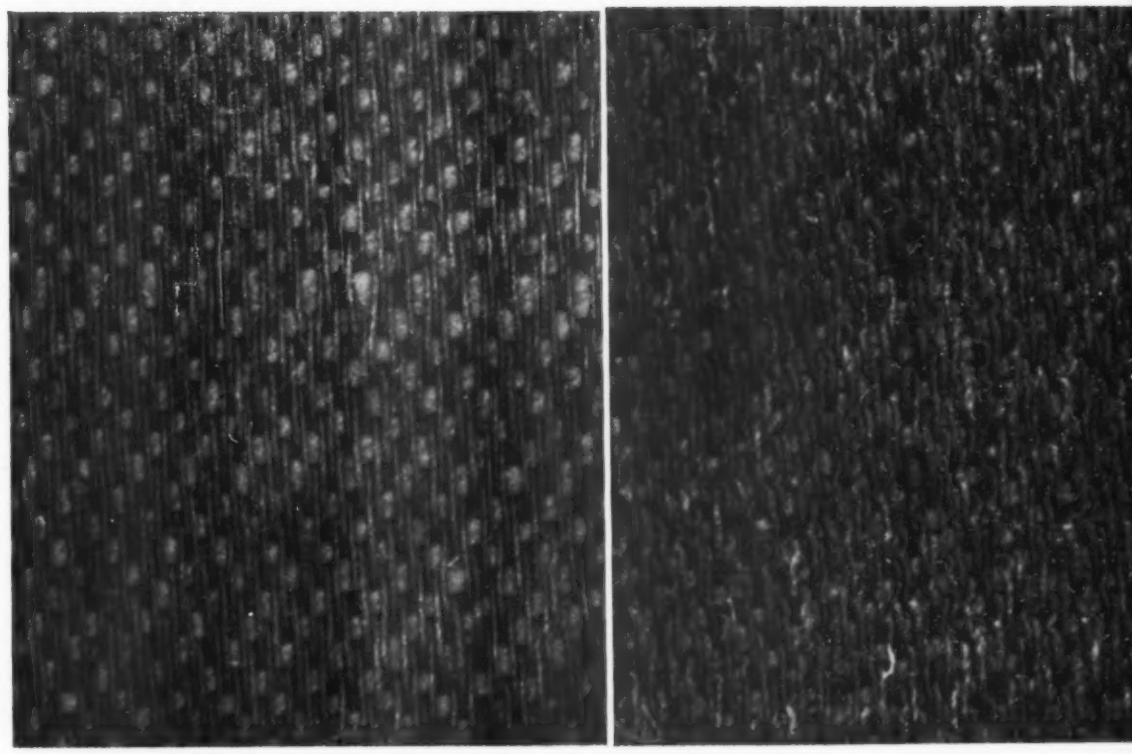
WOOLENS AND WORSTEDS:

The compacting process eliminates relaxation shrinkage in woolens and worsteds, while adding increased bulk, cover, and loftiness of hand. In combination with suitable chemical finishes and/or significant percentages of hydrophobic or nonfelting fibers, fully washable wool fabrics can be achieved by compacting.

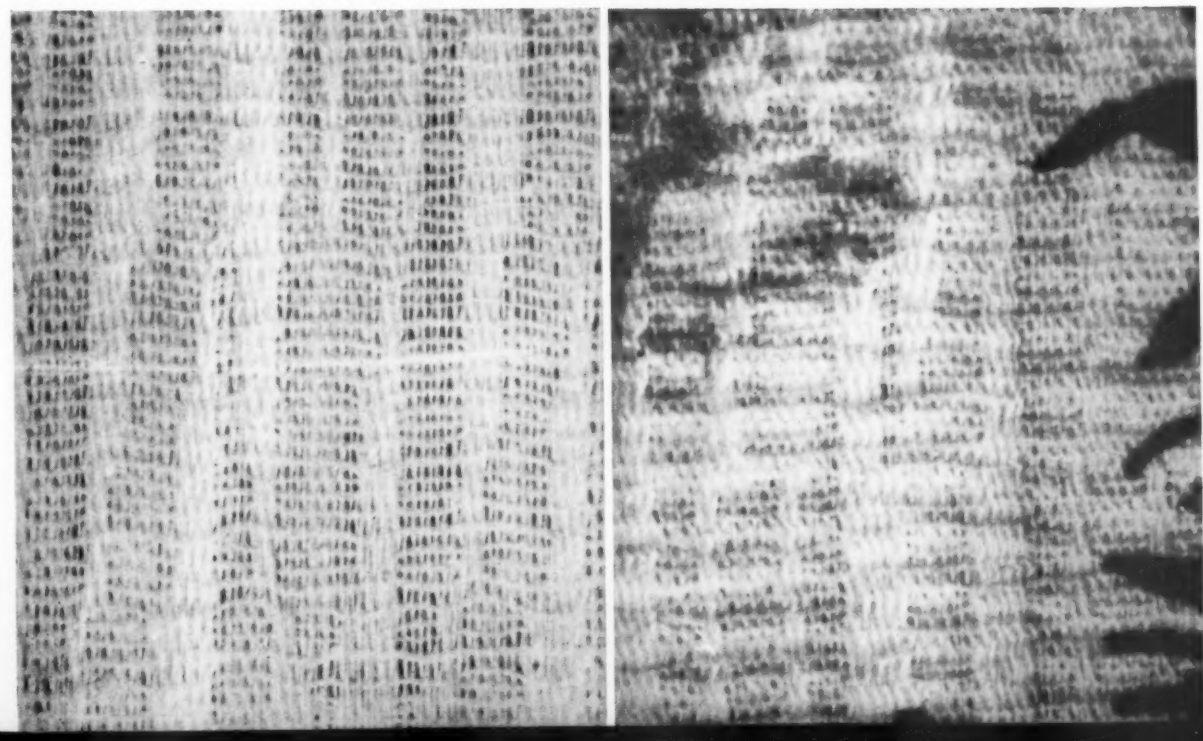
In many samples of wool and wool-blend fabrics brought to Fabric Research Laboratories, fulling shrinkage (that shrinkage peculiar to the felting properties of the wool fiber) has been well controlled, but relaxation shrinkage (shrinkage resulting from the relaxation of strains caused while the fabric was stretched in processing) has been high. The compacting machine easily eliminates these shrinkages. One-hundred-percent wool fleece coating, tweed suiting, flannel suiting, and worsted suitings have been compacted to less than two percent relaxation shrinkage. Gabardine suiting of wool-Dacron blends, twill suiting of wool-rayon blends, and women's suiting of wool-Orlon blends have been compacted to less than one percent relaxation shrinkage. In all cases compacting has added increased bulk, cover and loftiness of hand; and in tweed suitings, for example, the pattern is brought to the surface in bold relief.

Relaxation shrinkage of heavy wool carpeting and wool blankets can be removed with an increase in cover and loft. The sponging operation can effectively be replaced by compacting so that the fabric is "ready for the needle" after the compacting process. Lightweight tropical worsteds that are too light permeable can be made more opaque. Fourteen-ounce woolens have been compacted into 16-ounce fabrics, and cloths which lack a few picks can be brought up to specification. Worsted fabrics which require a light fulling to close up the structure and impart a slight cover have been processed on the compactor in open width without





Compare conventionally finished fabrics (left in all cases) with compacted fabrics. The matelasse above has had its pucker fully restored by compacting. At right are portions of a cotton jacquard bedspread; in the compacted sample the warp covers the filling evenly and the hand is enriched. Below, cotton fabric with printed pattern regains its background texture. All photos were taken under similar magnification and lighting conditions.

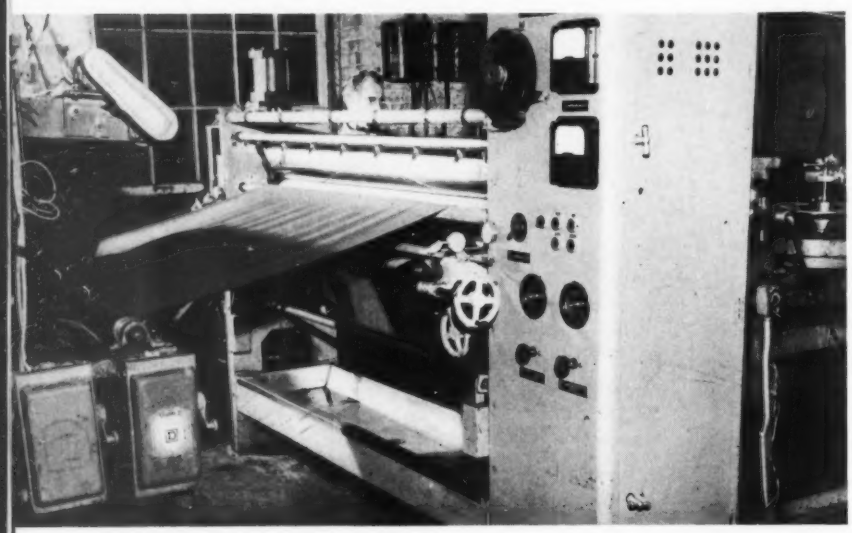


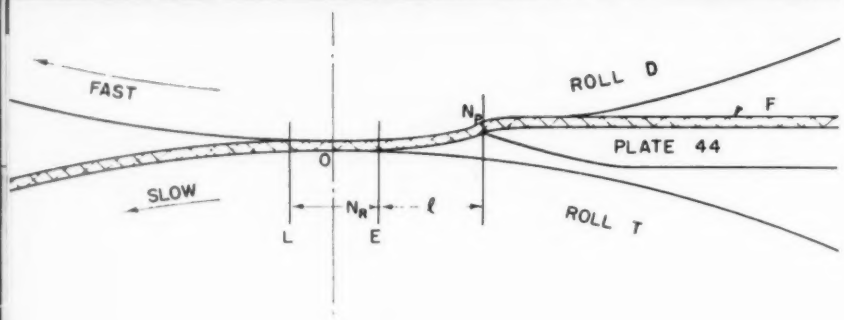
fulling and the required densification was easily achieved.

Already, tested results of compacting in the wool and wool-blends field have shown its value to the wool industry. Compacting has been found to serve several functions in the finishing of wools and wool blends, yet the exploration of further possibilities of compacting as a finishing process is far from complete.

COTTON FABRICS:

The cotton industry has had for more than 25 years a satisfactory method of preshrinking most cotton fabrics. Obviously, there are few incentives for the acceptance of a new mechanical preshrinking machine in a field where equipment is already in place. Nevertheless, there is interest in a low-cost machine which, in addition to stabilizing shrinkage, emphasizes surface texture and produces cover in contrast to the flat, smooth, or calendered surface generally produced on existing equipment. Because of this interest certain cotton samples have been compacted.





The compacting machine consists of two rolls (roll D *and roll* T*) and a steel plate (plate 44). The fabric (*F*) is introduced at point* Np*, where it is held against the upper roll by the plate. By holding the fabric against the upper roll at point* Np*, the plate functions to limit the length of fabric under compression to length* Np *to* E*. The fabric is carried into the nip (*Nr*) between the rolls at approximately the speed of the upper roll, which has a faster surface speed than the lower roll. The lower roll, with a rough surface (or a surface exhibiting a higher coefficient of friction than the upper roll), revolves more slowly and holds back the fabric. The compression created by this differential in peripheral velocities of the two rolls causes a lengthwise contraction in the short length (*Np *to* E*) of fabric actually under compression.*

More detailed information on the compactor can be obtained from Riggs & Lombard, Inc., Lowell, Mass., producer of the machine under license from Fabric Research Laboratories, Inc.

The range of cotton fabrics processed by compacting has exhibited shrinkage results comparable to results obtained by other compressive shrinking machines; namely, one percent or less. A few examples of cotton fabrics that have been successfully compacted are carded broadcloth, figured drapery, eight-ounce twill, oxford shirting, nainsook, poplin, flat toweling, muslin, and corduroy.

It is believed that the immediate utility of compacting to the cotton industry is for those mills that produce cotton fabrics which require surface interest or increased bulk and loft. One such example is corduroy, which exhibits satisfactory surface appearance after compacting. Cotton blankets and cotton flannels show increased bulk, loft and a better hand; and decorative fabrics, especially jacquards, are greatly enhanced in appearance.

YARNS AND TAPES:

Only preliminary work has been done in compacting yarns, yet the results have proved extremely interesting. It has been found that not only is shrinkage reduced, but that yarns are made more bulky and, under proper conditions, stretchiness can be built into the structure. Preliminary exploration into the compacting of yarns has shown successful results; further research, no doubt, will reveal more.

Present methods, generally of a chemical nature, to control shrinkage in tapes have proved unsatisfactory in many instances. The compactor successfully eliminates this shrinkage through mechanical methods. One machine to compact tapes has been operating in a production line since May of 1956, and a second is now being built.

MISCELLANEOUS FABRICS:

The versatility of compacting can best be indicated by a few examples of miscellaneous fabrics which have been successfully compacted in laboratory tests. These examples offer testimony to the future possibilities of compacting a wide variety of fabrics.

Axminster carpets, viscose bedspread material, synthetic blankets, cotton bedspreads and figured upholstery fabrics have been successfully run on the compactor, not only for the purpose of reducing shrinkage but also to impart a better surface appearance to the fabrics.

Among the tested fabrics was a jacquard with a colored warp and natural filling. In the fabric received an undesirable amount of the filling yarn could be seen in the basic pattern (the ground). The compacted fabric has very little filling showing and, as a consequence, the ground is more nearly a solid color. In other words, the flush of the fabric has been altered and, in some instances, completely reversed. Where the warp yarn forms a pattern, the figures are much more prominent, giving what has been described as the "three-dimensional" look. Another fabric which was designed to produce a crepe effect lost this appearance in finishing, but was entirely restored by compacting. Fancy yarn fabrics using nubs, slubs, thick-and-thin yarns and the like have had the surface interest further accentuated by compacting. Here again, the opportunities to create new and unusual effects plus shrinkage reduction are evident.

The compacting machine is a tribute to the consistent efforts of a modern textile research laboratory; its value is dependent upon the textile industry's ability to meet its obligation and keep abreast with the progress of research ■

A NEW YARN CONCEPT

COMBINING NATURAL FIBERS WITH PLASTIC BONDING AGENTS

The almost entirely new concept of yarn spinning described here has already aroused the special interest of technologists because it could effect revolutionary economies in some important segments of the fiber and yarn industry.

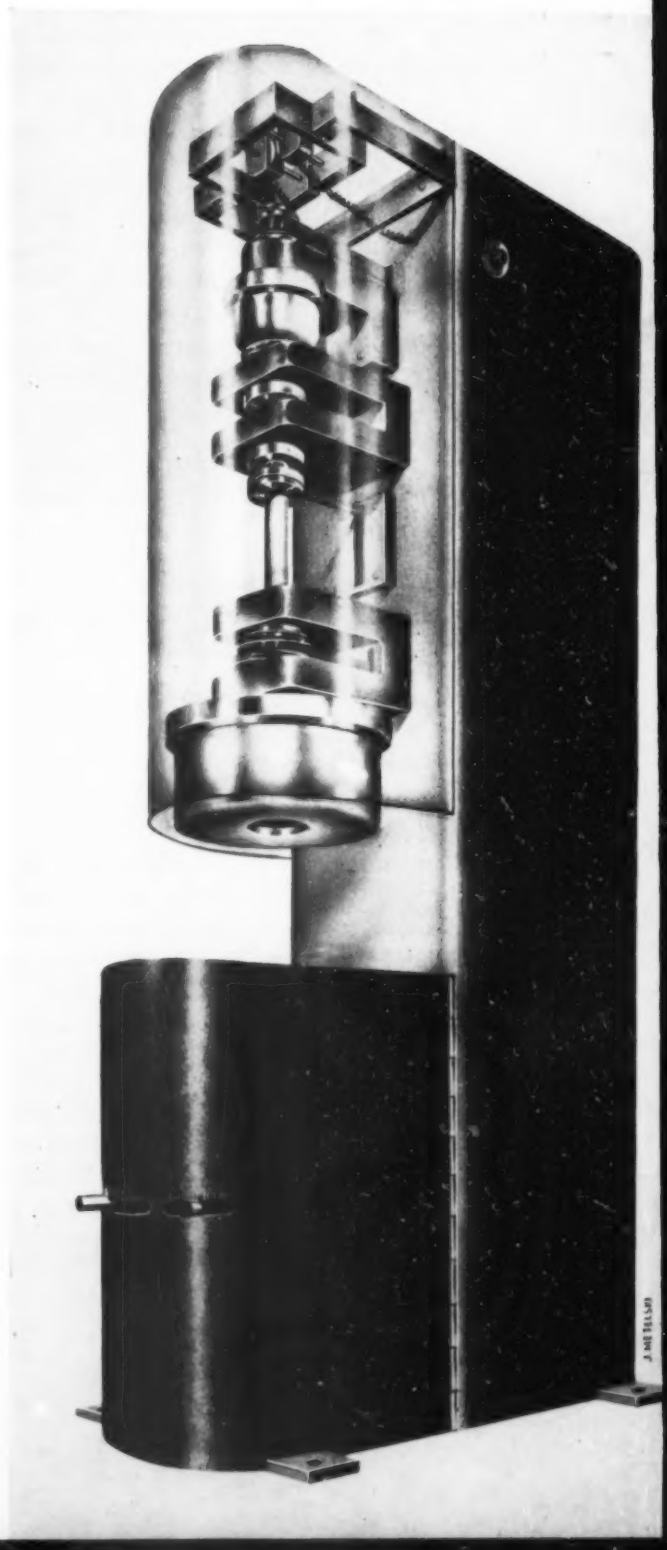
The present direction of textile progress is toward a marriage between the textile and chemical industries. Examples of this are found all the way from fertilizers for fiber crops to the diversification of textile finishes. At every stage the textile chemist is being called on to aid the fiber producer, spinner, weaver and converter, if he is not already deeply involved in the business of synthetic fiber production.

In this marriage the progress of technology has closely followed traditional techniques; the chemist has concentrated on supplementing the traditional methods rather than on replacing them. Hitherto he has not been faced with the need for re-thinking the whole textile cycle in terms of modern materials.

Bob yarns, as we may call the yarns spun on the new principle proposed by Emilian Bobkowicz of Montreal, embody a radically new concept in textile technology and a new relationship between chemist and textile product. Mr. Bobkowicz, who is president of a Montreal firm bearing his name, is an expert with more than thirty year's experience in textiles, and he has approached the process of spinning yarns in the light of modern plastics chemistry, so much in the forefront in textiles today.

To understand his concept it is necessary to consider the basic process of making yarn. The spinner's art in essence consists in making use of the slight adherence between fibers to hold them together until they have been twisted sufficiently to grip each other tightly and form a strong yarn. Because this adherence on which the spinner depends is slight, the fibers are carried gradually through many stages to evolve the final yarn.

The principle which *bob* yarns use is to replace the slight adherence between fibers by a firm plastic bond which



Single ultra-high-speed spinning unit, designed and patented for spinning yarns on the method proposed by Bobkowicz, which is being made available for development work.

securely locks the fibers together. By this means several gradual stages of conventional spinning can be eliminated and the yarn manufactured in two decisive steps. The spinning speed can immediately be increased by from four to ten times. The reduction in the number of steps and the increase in handling speed result in great savings of cost.

The actual means of uniting the fibers with a plastic bond is already being employed commercially in producing non-woven fiber papers and tapes for various uses. The fibers are carded into a thin sliver and bonded by spraying or by application under heat of a continuous plastic sheet from .002″ to .0005″ in thickness. The strength of the plastic now replaces the natural adherence of the fiber. The sheet is slit into continuous fiber-and-plastic ribbons from 1/16″ to 1/4″ in width. Each ribbon is then heated and twisted to form a yarn. The yarn, composed of twisted fiber and plastic bond, has the strength of normal twisted yarn plus the added strength of the plastic component.

NEW YARN TREATMENTS:

For this procedure only two pieces of equipment are necessary. The first makes a continuous fiber web, welds it to one or both sides of a nylon, saran, polyethylene, Mylar or other sheet and slits it into ribbons. The second twists the ribbons, softened by heat, into a yarn which may be given any desired degree of twist per inch, at a speed of from 15,000 to 30,000 r.p.m., and collects the finished yarn as a cake ready for sale or for use.

This new technique replaces the conventional lapping, carding, combing, slubbing, roving, drawing and spinning by these two steps.

This process can, if desired, be carried out directly after ginning in the case of cotton. Special machinery has been designed to make this possible.

Bob yarns open the way for interesting and unconventional yarn treatments. For example, by making a plastic and fiber web with two different fibers, such as silk and cotton on opposite faces of the web, and twisting so as to keep the silk always outward, a yarn may be spun with silk face and cotton core. The same procedure could be used for cotton yarn with long staple surface and short staple core. Or a saran sheet may be faced with cotton fiber web on one side only and then spun, keeping the saran back outward, to produce a weather- and soil-resisting saran yarn with cotton core. Many new blend concepts and yarn refinements are possible along these lines.

Because the yarn when twisted has the strength of conventional yarns, the plastic may be dissolved out and recovered at the finishing stage if the proper bonding agent is used. As, however, the present trend in finishing favors the incorporation of plastics, *bob* yarn with the plastic retained is in keeping with the trend. Other finishing advantages include the elimination of sizing and slashing for this type of yarn.

Dyeing can be handled in the conventional way and, of course, solution-dyed fiber can be used for the web.

NEW MARKETS AND RESOURCES:

The Bobkowicz yarn concept has important implications outside the immediate field of yarns and spinning. It could greatly facilitate the use of hard-to-handle and waste fibers and may thus bring a change of basic economics in some fiber areas. For example, the fiber produced from flax grown for linseed is coarser and more lignified than that used for linen. It is largely waste today and is estimated at over one million tons per year in this country. Utilization of this fiber to replace jute, imported from India and Pakistan at the rate of one billion yards of burlap per year, could make the U. S. and Canada independent of jute imports. This new yarn concept can also be applied to such hard-to-handle fibers as ramie, sisal and kenaf.

Because it would drastically cut the labor costs of spinning, this process would make possible trade in some classes of yarn where baled fiber is exported today. It could also greatly assist in production of competitive, low-cost fabrics for export and thus strengthen our textile economy. This would make this country less vulnerable to dumping from foreign markets where labor is cheap.

It should be mentioned, however, that the process in the present stage is only considered applicable to coarse and medium yarns, comprising some 75% to 80% of our textile production. Application to fine yarn counts will be contingent on further research and development.

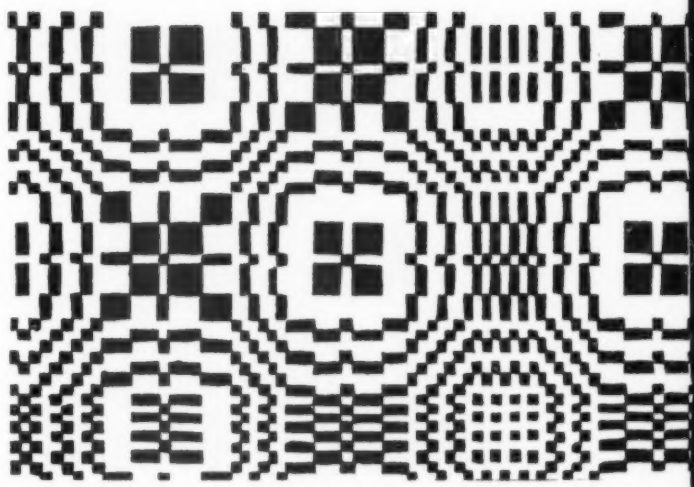
NON-WOVEN CLOTH POSSIBILITIES:

Machines for the manufacture of non-woven cloth by crossing and heat-bonding webs composed of *bob* yarns have been designed. Such web-like, non-woven fabrics could offer the strength, flexibility, breeze and, in some cases, hand of conventional fabrics. For the bagging and industrial markets, where paper products have recently supplanted textiles, these may prove important.

This yarn producing concept will be subject to the most searching scrutiny by yarn makers who have a substantial investment in plant and machinery which this development might render obsolete. Every development at this point is being closely watched by those in the industry who see the possibility of opening up new markets through applications of this principle ■

8,000

YEARS OF TEXTILES



Textiles become in the years from 1920 to 1950 the second largest industry in America and inventiveness keeps pace with growth. This is the era of new fibers — rayon and acetate are succeeded by nylon, Acrilan, Vicara, Orlon and Dynel — and the beginning of fabric control with the development of processes to resist wrinkles and shrinkage. Conclusion of the history compiled by Textile Editor George E. Linton.

1920: Beginning of the decade which had tremendous repercussions on American life. Some of the changes were: the knee-length skirt which helped the hosiery manufacturers; the Charleston which was a boon to the shoe industry; bobbed hair; flat bosom caused by tight brassieres; the demise of the corset; polo coats, raccoon coats for the male in college; sweaters, the *sloppy stance,* the boyish form and the long cigarette holder. This was the era of Coolidge prosperity and the coming of sportswear, spectator sports clothes, fashion news on the radio and movie shorts on the latest fashions. Styles became fashions overnight in this era of synthetic gin. The automobile did much to change the tempo of life and the fur coat now became a necessity instead of a luxury. Dresses became the best paying proposition in the garment industry. By 1928, Fashion and Style had passed the growing pains stage; they were here to stay and to become a powerful factor in clothing.

The rayon department of E. I. du Pont de Nemours & Co., Inc., of Wilmington, Delaware, was established in Buffalo, New York.

Tubize Artificial Silk Co. of America was founded in Hopewell, Va., to make nitrocellulose rayon. The project has since been abandoned by du Pont, which aided this Belgian concern to become established.

The National Artificial Silk Company was formed about this time by local interests in Cleveland, Ohio. Following some changes, this concern subsequently became the Industrial Rayon Company.

About this time the first acetate yarn to be made in this country was produced in East Boston, Massachusetts. This product was made by the Lustron Company. This organization later became the Celanese Corporation of America, a major acetate company today. Its main plant is in Cumberland, Maryland.

Reeves Brothers Inc., was formed from the Harding Tilton Co., New York City. Admiral Richard E. Byrd, the explorer, is a member of the board. The famous Byrd Cloth is a product of this company.

Charles B. Johnson perfected the first practical rayon warp sizer for the textile industry. It had been found that the then standard cotton sizers could not give rayon warps the handling they required.

Rayon at the beginning of the year was around $6.00 a pound but sold for about $2.50 by the end of the year.

1921: First International Silk Exposition — still remembered and discussed — was a marvelous success.

In November, the first meeting of the American Association of Textile Chemists and Colorists was held in the Engineer's Club, Boston. Dr. Louis Olney, Lowell Textile Institute, became chairman of the Organizing Committee and was elected the first president. American Dyestuff Reporter was chosen to carry news and papers to all members.

Soluble vat colors, the Indigosols, were developed by Dr. Marcel Bader.

McCall introduced the printed pattern which was a great advance in the development of home sewing. After 1938, when the patents expired and the method became public domain, other companies issued printed patterns.

Draper Corporation built its first loom to weave rayon fabric.

Du Pont began commercial production of rayon in its plant in Buffalo, N. Y.

1922: In January, AATCC formed its first sub-committee of the Research Committees. This committee was authorized to proceed with a study of fastness to washing of dyed and printed cotton fabrics; to formulate methods of procedure and to establish proper standards to indicate the degree of fastness. The committee has worked on washfastness ever since and the end is not yet in sight.

U. S. Supreme Court upheld the powers of the Federal Trade Commission to act in cases of misbranding textile materials.

Sales directors group formed for the purpose of preventing trade abuses and encouraging the use of uniform sales contracts.

New York enacted law which recognized commercial arbitration; added much impetus to the work that had been done by the Silk Association of America for twenty-five years prior to this enactment.

Plant erected by American Viscose Corporation in Nitro, W. Va., to make rayon pulp from cotton linters for their own use.

1923: Japanese earthquake created serious crisis in raw silk trading; trading suspended pending collection of pertinent data by Dr. D. E. Douty, president of U. S. Testing Company, Hoboken. N. J. Silk Association sent $400,000 collected in one week to stricken Japanese.

Uptown Credit Group established in New York City.

Commission Silk Throwsters organized.

Du Pont acquired the cellophane rights under the Brandenberger patents of 1908 and in April, 1924, brought out the first cellophane produced in this country. Col. W. C. Spruance directed the work in the du Pont Cellophane plant, Buffalo, N. Y.

Burlington Mills organized in Burlington, N. C., by J. Spencer Love.

Sheep population was a little over 38 million; wool produced was 266 million pounds.

Hesslein & Co., the largest exporter of cotton piece goods in this country, was established. The company also had several textile plants in England. It is a wholly-owned subsidiary of Neuss Hesslein & Co., Inc.

McCampbell & Co. incorporated. One of the

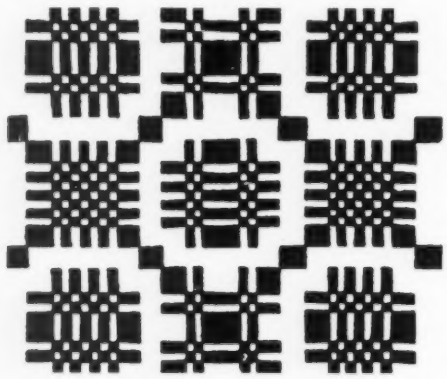
units in the organization is the Graniteville Company, founded in 1845 and still operating.

1924: Kenneth Lord, Sr., of the fabric firm of Galey & Lord, coined the term which today is worth millions—rayon. The name was adopted by all rayon-producing nations as a generic term for *chemical yarns*. Silk Association polices world industry to prevent private use of the word rayon.

Silk Association established Examination Bureau for impartial examination of goods in trade disputes. This Bureau does yeoman work for the industry.

The original plain, transparent cellophane film was selling at $2.65 a pound.

Borden Mills, Inc., was established as a wholly-owned subsidiary of American Printing Co., Fall River, Mass. It became a unit of Iselin-Jefferson Co., Inc., in 1935.



1925: Silk Association inaugurates program for standardization of Government purchasing specifications in cooperation with the National Bureau of Standards.

Since 1914 the value of silk manufactured goods in this country increased 218 percent.

Du Pont opened its second rayon plant in Old Hickory, Tenn.

1925-1929: New concerns came into being in the field of rayon — American Enka Corporation, affiliated with Dutch interests; North American Rayon Corporation; American Bemberg Corporation.

In 1927 and 1928 the Viscose Company and du Pont decided to supplement their production of viscose rayon with additional production of rayon acetate.

The Eastman Kodak Company of Rochester, New York, in conjunction with Tennessee Eastman Company and the A. M. Tenney Associates of New York City, began to make acetate rayon. The product is now known as *Teca* — Tennessee Eastman Cellulose Acetate.

1926: Franklin Rayon Corporation founded in Rhode Island. Royal Little and Eliot Farley were co-founders.

First industry-compiled data available for the rayon industry.

First raw silk classification and standard methods of testing provided by the Silk Association of America.

1927: First acetate rayon and rayon crepes made in Europe.

The plastic resins, Alkyd and Aniline Formaldehyde, made their appearance.

Vinyl resins produced on a commercial basis by Carbide and Carbon Chemicals Corporation, Buffalo, New York.

North American Rayon Corporation built rayon plant in Elizabethon, Tennessee.

Moistureproof cellophane was introduced by two du Pont chemists, Dr. Hale Church and Dr. Karl Krindle. Du Pont was now making 90% of the world output.

American Viscose Corporation announced the invention of the double-Godet by Frank H. Griffin. With this invention began the improvement of high tenacity viscose yarns.

Iselin-Jefferson Co., Inc., was incorporated in New York City. It was an outgrowth of William Iselin & Co., which began business in 1808.

1928: British Celanese Corporation built the plant of the American Celanese Corporation near Cumberland, Maryland. The name of the locality, three miles from the city, is Amcelle.

E. I. du Pont de Nemours & Company, Inc., began fundamental research in the "how and why of molecules." Efforts were being made to determine how these building blocks of nature unite to form giant molecules such as those found in cotton, silk and rubber. This research gradually developed what is now nylon.

Rayon staple fiber made its debut in the textile industry.

Design Registration Bureau established.

Employment wages in the rayon industry show increase of 38% since 1925.

Delustered rayon of American Viscose Corporation, *Dulesco*, appeared on the market. Delustered rayon was used in hosiery.

Rayon Yarn Association formed in New York City to foster trade conditions.

Showa and Kurashiki rayon plants opened in Japan; at this time Japan was on its way to world leadership in the production of rayon.

1929: Second International Technical Raw Silk Conference was held in New York. It consisted of 21 sessions and 85 papers read in English and Japanese.

American Viscose Company produced 54 million pounds of rayon in 1928 to become America's leading producer.

Soviet Russia began building two rayon plants, with Germany supplying equipment.

Rayon linings were meeting with favor in men's suits since they were now made perspiration-proof, resistant to moths, and had desirable smoothness.

America became world leader in production and consumption of rayon, producing almost 100% more than the next rayon producer.

Zippers were now being used in apparel.

With the stock market crash in October of this year, it can be stated that the age of the flapper passed into oblivion. The textile and apparel failures were many during the hectic months which were to follow.

Berkshire Fine Spinning Ass. was organized from a group of textile plants: the Coventry Company, Anthony, R. I.; the Plunkett Mill, Adams, Mass.; the Valley Falls Co., Albion, R. I., the King Phillip Mills; the Parker Mills in Fall River, that included the Hargrave group; and Fort Dummer Mills. In 1939, Berkshire bought the yarn mill of Farr Alpaca Co., Holyoke, Mass.

Process for imparting crease-resistance to linens, cottons, rayons and acetates patented by Tootal Broadhurst Lee Co. Ltd.

1930: Color Coordination Committee established here.

Du Pont chemists created a new synthetic substance from which crude filaments could be drawn.

Great strides made in the Arizona cotton belt for improvement of the staple. Sakellarides, the well known Egyptian cotton, was crossed with the prominent Pima staples of this country. The resultant cotton, known as SXP, gave greater yield per acre than Pima.

Rapidogen colors, synthesized from stabilized diazomines, were announced.

The Circuit Court of Appeals ruled that the term, "satin" is the name of a weave construction; thus, rayon satins could now be legally advertised as such.

Mixtures of cotton and rayon proved successful in the rainwear field.

The first Draper high-speed loom invented; will increase loom speed by twenty percent.

1931: Silk Association of America saved industry one million dollars by securing a three-dollar-per-100-pounds reduction on transcontinental freight rates. Also helped manufacturers to set up the first standard system for the numbering of spun rayon yarns.

Design Protection Association formed in New York.

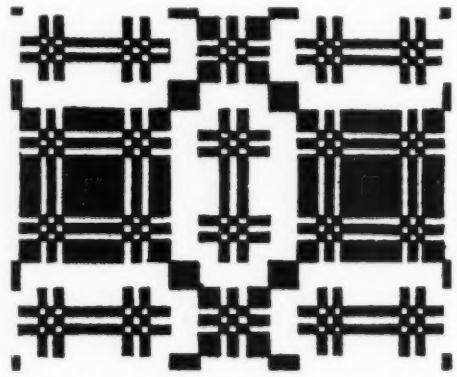
Cluett Peabody & Co. set up licensing agreement whereby manufacturers of cotton textiles could benefit from the Sanforized Compressive Shrinkage process.

Owens-Illinois Glass Company and Corning Glass Works commenced research and experimentation in glass filaments. In 1938, these two companies combined to form the present Owens-Illinois Fiberglas Company. The two original companies turned in their holdings to the new company: Owens-Corning Fiberglas Corporation which registered the name *Fiberglas*. The glass marble used in making Fiberglas, five-eighths of an inch in diameter, can be drawn out to a length of 102 miles in filament form. The Fiberglas filament was perfected to the point where it would bend like rubber, could be tied into a knot and woven into a fabric.

Lastex appeared on the market. Made in woven and knitted yarns, it finds much use in horizontal, vertical and two-way stretch fabrics, chiefly in the foundation garment trade.

1932: Cellulose Acetate Butyrate, a plastic resin, appeared.

At the bottom of the depression, and with steel selling for $26 a share, silk dropped to



$153 a bale on the Yokohama Exchange. Japan's farming population constituted about 40% of the people, or two-million households, all engaged in the cultivation of very small farms devoted almost exclusively to sericulture.

1933: In November the American Association of Textile Technologists organized. J. J. Reutlinger was made chairman and soon after became the first president.

Wamsutta Mills introduced *Supercale*, a sheet finer than the famed Wamsutta percale.

New York City since 1929 had lost 1,100 dress houses; there were 2,300 in 1929, in 1933 there were only 1,200. Contract shops

showed a decline of 80% in the same period.

Viscose rayon was selling for around 50 cents a pound.

Southeastern Cottons, Inc., now known as Avondale Mills, Inc., began business. The original mill was built in Birmingham, Ala., in 1897 by Braxton Bragg Comer, a former governor of Alabama.

1934: Du Pont chemists perfected synthetic polymers of great strength and elasticity — a step toward nylon.

The Silk Association of America reorganized to cope with changing conditions and became the National Federation of Textiles with headquarters in 10 East 40th St., New York.

Tire yarn was first produced on a commercial basis in the Richmond plant of du Pont.

Meadville, Pa., plant of American Viscose Corporation began operations.

1935: Cotton production in this country reached approximately nine billion pounds, about 18 million bales.

Du Pont research brought about a superpolymer of the polyamide type in synthesized form. The superpolymer was called "66" because of the molecular structure. The first "6" indicated the number of carbon atoms in the diamine; the second indicated the number of carbon atoms in the dibasic acid of which the new substance was composed.

Stünzi and Sons opened their weaving plant in England for high quality silks and rayons.

Acetate staple was now being produced in this country.

J. W. Valentine Co. Inc., established.

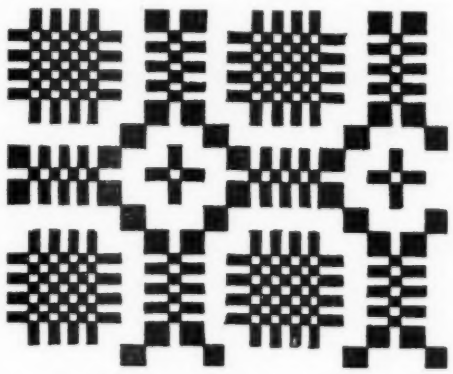
1936: The famous Rust Brothers, Memphis, Tennessee, invented the mechanical cotton picker, the best type to date.

American Viscose Company, Marcus Hook, Pennsylvania, profiting from the link with Courtaulds Limited, whose original plant was in Bocking, England, produced 270 million pounds of Fibro, the staple fiber.

Italy introduced *Lanital*, a casein fiber.

Methyl Methacrylate and Vinyl made their appearance.

Demise of the NRA. National Federation



of Textiles returned to the field of general industrial cooperation.

NFT represented at the first meetings of the International Labor Office of the League of Nations in Geneva by William Menke.

300 million pounds of rayon were produced in this country in 1936, a truly sensational rise from the six million pounds made in 1930.

1937: Ethyl Cellulose and Lignin, plastic resins, came onto the market. Polystyrene and Vinyl Butyral also made their debut.

Du Pont brought out experimental toothbrushes with bristling filaments made of polyamide. These bristles were known as *Exton*, and were more durable than the usual pig bristles.

Experimental stockings were knitted from the new chemically-produced material developed by du Pont, named nylon. Dr. W. H. Carothers received patents.

NFT obtained the cooperation of the cotton textile industry in acceptance of one minimum wage for all cotton, rayon and silk mills. These groups discussed the possibilities of forming a National Council for the Textile Industries.

Bates Fabrics, Inc., subsidiary of Bates Mfg. Co., established.

The New York dress trade was now showing a volume of about 400 million dollars a year; the all-time high was 750 million in 1929.

The Draper Corporation brought out the first pick tension shuttle eye which laid the first pick with the same tension as the other picks in the cloth.

Announcement by du Pont of its *Cordura* HST viscose rayon for tire cord fabric.

Cuprammonium staple now on the market.

A new continuous process for the manufacture of rayon was developed by Industrial Rayon Corporation, Cleveland, Ohio, and housed in a 12-million dollar plant.

1938: American Silk Journal merged with Rayon Textile Monthly.

In October, nylon was formally announced to the public.

Owens-Corning Fiberglas Corporation began production of Fiberglas.

Franklin Rayon Corporation became the Atlantic Rayon Corporation.

1939: Vinyon, made from vinyl, was introduced into the commercial field of synthetic filaments. The original patents on vinyl resin were assigned to Union Carbide and Carbon Company, New York. The resin serves as the base for making Vinyon, a product of the American Viscose Company, Marcus Hook, Penn.

Large scale plants to make nylon polymer and yarn on a vast commercial basis were begun in Seaford, Delaware. One plant was in operation in less than five years after the original invention of the now famous "66" polymer.

Women's nylon stockings displayed at the San Francisco World's Fair.

Asbeston (blend of cotton and asbestos) patented by U. S. Rubber Co.

Japan led the world in production of raw silk, which constituted 37 percent of its foreign trade. It supplied the world with 60 percent of its raw silk goods and the United States took better than 85 percent of Japanese silk exports.

This country produced 325 millions of pounds of rayon yarn; Japan was in second place with an annual output of 240 million pounds; Germany was third with 155 million pounds; Great Britain and Italy, 120 million pounds each; France, 55 million pounds. Germany and Japan had worked hand in glove in the field of synthetics; textile engineers, technicians and technologists were exchanged, money was furnished, and factories were built along modern lines.

The old *Truth-in-Fabrics* project of Senator Capper, Kansas, fostered by him since 1923, now blossomed forth with the passage of the Wool Labeling Act of 1939, to protect manufacturer and consumer.

Perlon, the German synthetic fiber that is the counterpart of du Pont's nylon, discovered and invented by Dr. Schlack.

1940: Alginate, the fiber produced from seaweed, made its appearance in England.

Dow Chemical Company, Midland, Michigan, began commercial production of Saran.

Du Pont began to build its second large plant in Seaford, Delaware, in January. This plant more than doubled nylon production.

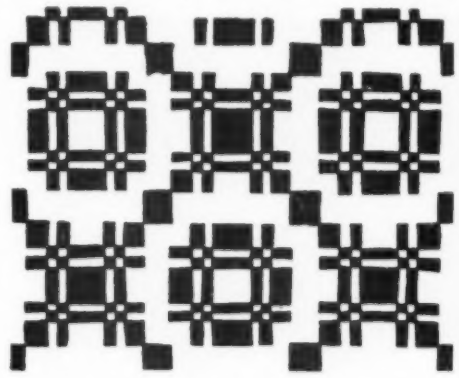
Nylon placed on public sale throughout the country on May 15th.

Rayon production reached 1,237 million pounds; in 1930 it was 6 million and in 1936, 300 million. In four years rayon had quadrupled in production, a sensational rise.

The Garment Center in New York provided about 36 weeks of work a year with wages totaling only $1,200 for the inside worker and about $900 for the contract worker.

Carbide and Carbon Chemicals Corporation developed a commercially feasible process for the synthesis of glyoxal; this is 84 years after glyoxal was first synthesized by H. Debus.

The first rayon rugs were made by American Viscose Corp. *Tufton* is the name given to



this viscose carpet-type yarn.

Celanese Corporation built its second acetate yarn plant in Narrows, Va.

1941: NFT absorbed National Rayon Weavers Association. G. H. Conze, president since the end of NRA, retired and was succeeded by William G. Lord.

In November, the Martinsville, Virginia, plant of du Pont was in full operation, doubling the production of nylon. Twenty million pounds were produced in 1942. This was seven times the production originally planned.

Fortisan appeared on the market under auspices of Celanese Corporation of America.

Founding of the New York Dress Institute, a great clearing house for the apparel trade.

On August 27th, the Government took over all silk stocks in this country.

American Viscose Corporation built its Fibro staple pilot plant, Nitro, W. Va.

1942-1945: During the War Years NFT served as clearing house for Government procurement agencies in placing contracts for silk and nylon parachute cloths and other products. The Federation did valiant work in expediting manufacture and delivery of vitally needed materials.

1943: Atlantic Rayon Corporation became Textron, Inc. Name was coined by J. Walter Thompson Advertising Agency.

Silicones came on the market.

Elastic type Vinyon entered the textile field; it is a product of American Viscose Company.

Reynolds Metal Company introduced aluminum yarn.

1944: In October, AATCC awarded the first Olney Medal for Distinguished Service to Dr. Louis A. Olney. The medal gives public recognition of outstanding achievement and contributions in the field of textile chemistry.

Polyfiber (polystyrene fiber) introduced to

the textile market by Dow Chemical Company.

Du Pont and Carbide and Carbon Chemicals Corporation announced polyethylene.

Ardil, the peanut protein fiber, was announced by Imperial Chemical Industries, Ltd., London, England.

High-heat-resistant thermoplastics such as styrene copolymers commercially produced.

Apparel trade in New York City reached annual production of 1¼ billion dollars.

Founding of the Fashion Institute, New York City. This junior college, the first of its type in the nation, is sponsored by the Board of Education, New York City, State Department of Education, Albany, New York and the Education Foundation for the Apparel Industry, New York City.

1945: Filament of stainless steel announced.

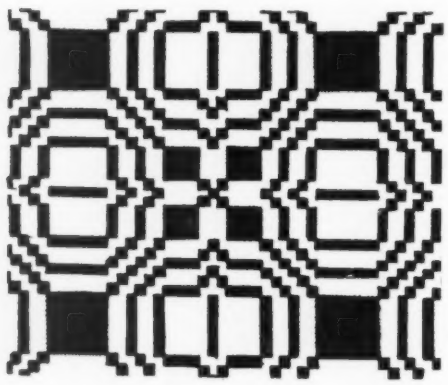
Leslie & Co. founded; the original company was Baldwin & Leslie, established in 1906.

1946: NFT returned to the civilian market. Tariff Committee, Research Committee and Standards Committee appointed. The Federation is now prepared to serve the fine fabrics industry in the future.

Nashua Manufacturing Company bought by Textron, Inc., for 10½ million dollars.

In February, the price of cotton exceeded that of viscose rayon staple; the first time that a man-made fiber actually undersold cotton.

Gossett Mills and its subsidiary, Chadwick-Hoskins Company, operating 11 mills and a finishing plant in the Carolinas, bought by Textron, Inc., for 12 million dollars.



In early October, cotton tumbled fifty dollars a bale after a meteoric rise in price. This threw the market awry and caused the Cotton Exchange to close three times in a single two-week period. From the 15th to the 17th of October, cotton fell ten dollars in price each of these three days.

Thomas Jordan, an operator in the New Orleans market, admitted that it was the liquidation of his holdings that forced the closing of the New Orleans and New York Cotton Exchanges. Said to be the greatest cotton operator in the world at the time, he was caught with 140,000 bales long and is supposed to have lost five million dollars in the deals.

Botany Mills established a Co-ordinated Selective Distribution Plan by which it sells its output of fabrics for women's, children's and infants' wear to a selected group of apparel manufacturers.

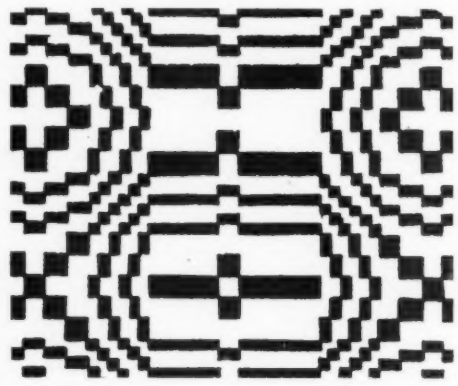
New York City was now producing close to 80% of the outerwear apparel in this country, valued at almost 2 billion dollars. 200 million dresses and 100 million skirts, slacks, blouses and jackets were made in this year; a 60% gain over 1944.

Carbide and Carbon Chemicals Corporation built a new plant for the production of glyoxal; demand had been created by the development of *Sanforset* process for the dimensional stability of rayon. Fabrics of viscose rayon are made permanently resistant to shrinkage through treatment with glyoxal.

Celanese Corporation acquired Tubize Rayon Corporation, producer of rayon yarn, Rome, Georgia.

Greenwood Mills, Inc., established; one of the genuine leaders in combed and carded cotton fabrics, and in the man-made and synthetic fibers fields.

J. P. Stevens & Co., Inc. organized; an outgrowth of the first plant that was set up in



Andover, Mass., by Nathaniel Stevens. In 1850 the concern was known as Nathaniel Stevens and Son. In 1876 the name became M. T. Stevens Co., and in 1885 the name was changed to M. T. Stevens and Sons.

1947: The New Orleans Cotton Exchange released a three-point program for the Chicago, New York and New Orleans Exchanges to govern the trading rules with a view to prevent price upheavals in the market. The program dealt with credits to trade accounts, margins for speculative accounts and an agency to supervise the activities of Exchange members.

Masslinn, a non-woven fabric made from a blend of cotton and rayon fibers by a method that completely eliminates spinning and weaving, announced to the trade.

On March 3, the New York Cotton Exchange was again closed, this time by a one-day strike by the United Financial Employees Union, AFL.

In March there were 398,000 looms in place in this country. Loom operation amounted to 486 million hours. A total of 950 million pounds of yarn was consumed in the manufacture of cotton broad woven goods and tire fabric; 877 million pounds were cotton, 61 million rayon, and 12 million pounds other yarns.

Sarelon, a new protein fiber, announced to the textile industry. As far as is known, the Southern Region Laboratory of the Dept. of Agriculture was the first laboratory in this country to produce fibers from peanuts.

Vinyon N, basically different from other vinyl materials, and produced from a white, powdery resin which results from the copolymerization of vinyl chloride and acrylonitrile, announced by Union Carbide and Carbon Corporation, Buffalo, New York.

The House of Commons passed, 179 to 72, the Government-sponsored bill to continue the buying of raw cotton by a state commission which replaced the privately operated Liverpool Cotton Exchange during the late war. The Government commission's authority is now absolute for buying raw cotton for Britain's huge cotton spinning and weaving industry.

Return of the free market in the wool industry by removal of Government controls causes upsurge in wool buying.

On May 28th the New York Cotton Exchange announced that it had tightened restrictions in cotton futures trading. The new rules became effective June 2nd. On and after that date margins on speculative customer accounts would be:

a. $10 a bale on futures selling up to 25 cents a pound.
b. $15 a bale from 25.01 cents to 30 cents.
c. $20 a bale from 30.01 cents to 33 cents.
d. $5 a bale additional in each price range of three cents above 33 cents a pound.

Currently, margins on speculative accounts are the same as the amended schedule up to 30 cents a pound. Above that figure, the margin is a flat $20 a bale.

The Exchange now requires that any member having net speculative position in the New York Cotton Exchange Clearing Association in excess of 5,000 bales must deposit with the Clearing Association, an additional $10 a bale on such excess.

Henry Neubert was chosen president of National Federation of Textiles. Miss Irene Blunt was named executive secretary for the 15th consecutive year. The Federation is engaged at present in the study of tariff reductions.

Textron, Inc., opened plant in Greenwich, R. I., to make tricot fabrics for women's lingerie.

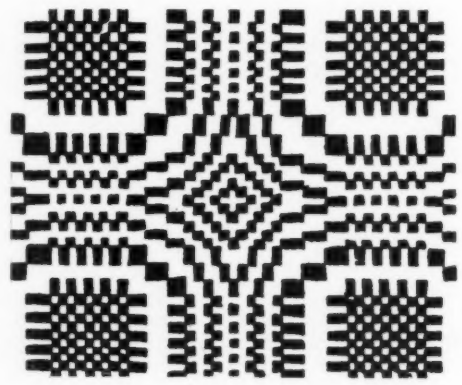
In June, announcement made that the 117-year-old, three-million-dollar plant of Thomas Oakes and Co., Inc. will be auctioned in July. This concern, the first in Bloomfield, N. J., was noted for years for the excellent coating and military fabric it produced.

In June, Japan shipped its first grey goods to England since the close of World War II. One-half of the order for 64 million yards was delivered. Australia took 12 million yards of Japanese cotton grey goods.

First graduating exercises of the Labor-Management School conducted jointly by Botany Mills, Passaic, N. J., and the Textile Workers' Union of America, C.I.O. Speakers were Col. Charles F. H. Johnson, President of Botany, and George Baldanzi, executive V. P. of the union.

Curbs on textiles in Germany eased; U. S. cotton producers agree to allow mills to sell finished goods where they wish.

Private international trade with Japan will be resumed on August 15th, 1947. By Sept. 1st, initial deals may be consummated. Gen-



eral MacArthur hailed move as "a step which partially lifts the economic blockade."

President Truman lifts cotton ban and allows importation or withdrawal from warehouses of an additional 23 million pounds of long staple cotton during the quota year ending September, 1947.

Pacific Mills announce Pacifix, a process for making wool fabrics washable; it is designed to fix the size of the finished garment by holding shrinkage to a minimum. Shirts of Pacifixed fabrics show less than 2% shrinkage.

Professors Robert B. Woodward and C. H. Schramm of Harvard University rival feat of nature in making a substance like protein. Their achievement opens up an entirely new field of plastics — with this technique it may be possible to make fur, silk or wool that will be all but identical to the natural product.

Plastavon, a non-woven fabric made from cotton taken raw from the bale, bleached, dyed or tinted, as desired, and bonded with synthetic resins, which in effect spot-weld the cotton fibers into a uniform sheet, now being produced by Avondale Mills, Sylacauga, Ala. It is used in "throw-away napkins."

This year's cotton acreage was 18 percent higher than in 1946 but yield will be about 2 million bales under spring-estimated needs. This will be offset, however, by carry-over of 3 million bales. July futures were highest in 27 years, 39.49¢.

The 80th Congress passed the bill which directed the Commodity Credit Corporation to continue price support for domestic wool in keeping with the 1945 support price until December 31, 1948. The bill did not contain tariff-hiking and quota-setting provisions which had caused President Truman to kill an earlier version with a veto.

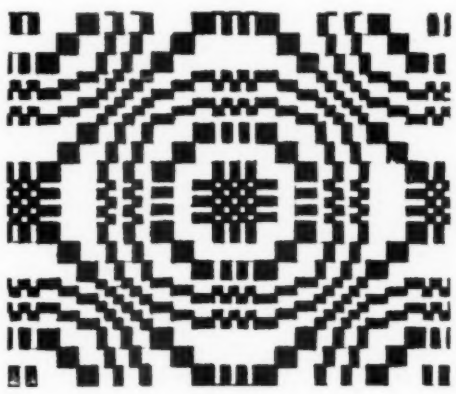
Japan began to rebuild its woolen industry; mills to handle 665,000 bales of wool annually and to buy U. S. and Australian wool clips.

Wool production in U. S. dropped 40 percent since 1942. Cause is said to be continued liquidation of the American wool growing industry under pressure of lower-cost imports.

Dan River Mills began production of several cotton fabrics treated with a new and exclusive chemical process which renders them as wrinkle-resistant as woolens or worsteds. The basis of the process is "Resloom C," a synthetic resin produced by Monsanto Chemical Co.

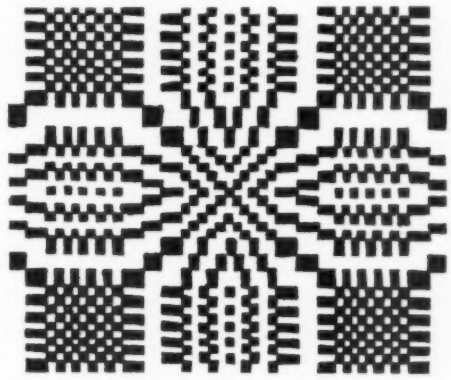
The silk of Japan has been transferred to the Government by the Supreme Allied Headquarters by direction of General Douglas MacArthur. Japanese silk had been frozen since September, 1945.

Japan, at present, has about 100,000 bales of raw silk and about 100 million yards of silk fabrics on hand. The Allied Command will merely supervise distribution in the interest of the nation's economy. Raw silk production in Japan has risen from 2,000 bales in January, 1946, to about 10,000 bales monthly during the first half of 1947. Fabric production increased to about 4 million yards monthly from a production of about 2 million yards a month last year.



Report of the British cotton industry finds Britain is still the largest cotton-exporting nation in the world. Cotton trade is now about 55% of the 1937 production level, but further comeback is impeded by a severe labor shortage, antiquated equipment and restrictive trade practices.

Scottish woolens represent 7% to 10% of Britain's woolen cloth. Bradford in Yorkshire is responsible for about 80% of the total fabric. Scotch mills are hampered by difficulty in obtaining new machinery, and the lack of skilled manpower.



Chemstrand Corporation formed to handle sales of nylon and the new acrylic fiber, Acrilan. Chemstrand is jointly owned by American Viscose and Monsanto Chemical Co.

High-speed section beam warper developed by Fontana-Lagano, Italy, proves practical.

Benninger of Uzwill, Switzerland, developed a magnetic brake-equipped warping spindle, suitable for straight creel, which permits warp crepes from parallel tubes or spools a speed of 140 yards per minute in manipulation.

Shuttleless loom developed by Leontyev of the Moscow Textile Institute; somewhat similar to the shuttleless weaving machine produced by Sulzer of Winterthur.

Adolph Saurer, Switzerland, has high speed ribbon looms weaving single picks which may be operated from 300 to as high as 950 picks per minute depending on the width of the ribbon being woven.

Lyons and St. Etienne, France, noted for centuries for fine silks, are now giving much attention to the possibilities offered by fine denier, continuous filament acetate.

Wool grown in the United Kingdom, except in the Orkney, Shetland and outer Hebrides Islands, again will be requisitioned by the Government this year.

1948: Nastrofil Co., Italy, introduced a frame which spins cotton yarns directly from the drawn sliver. Claims are made for improved strength and less fuzzy appearance, with drafts as high as 200 to 250. Constant ballooning is maintained by movable spindle support. The single side of the frame has 192 spindles, and the ring diameter is two inches. Labor savings are supposed to be as much as 50 percent; reduction in maintenance 30 percent; reduction in power 20 percent; with about 10 percent increase in production.

In February, Tennessee Eastmann Corp. announced that it will discontinue use of the word *rayon* for its cellulose acetate fibers and yarns. It claimed there is wide divergence between viscose and cellulose acetate rayon.

Domestic production of rayon for 1947 exceeded 975 million pounds, and represents about 48 percent of world production.

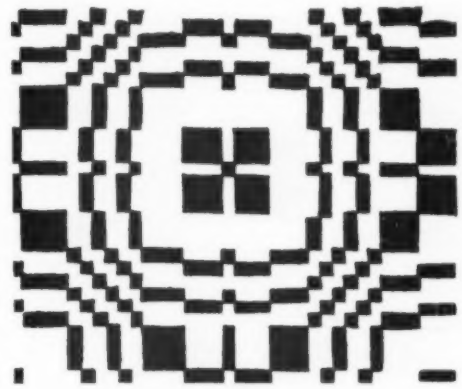
Textiles became the second largest industry in America. It has 750,000 electric motors located in 6,203 establishments, which employ about 1¼ million people, who receive about 1⅓ billions in salaries and wages per annum.

Statistics for the apparel industry reveal that there are over one million workers whose earnings total 1⅔ billion dollars per year. These workers produce about nine billion dollars' worth of clothing. New York State produces more than one-half the apparel for the nation, employs more than 40% of the workers, and pays about one-half of the total salaries and wages.

Woolen and worsted woven cloth production for 1947 was about 500 million linear yards, about 17% under 1946 production.

American Cyanamid Company announced production of Aerotex Softener *H* for reduction of static on nylon and Vinyon fabrics.

The Taftville, Conn., plant of Virginia-Carolina Chemical Corporation is to produce Vicara, successor to Aralac, in 1½ and 4 denier sizes in all standard staple lengths. It is claimed the fiber is extremely practical and adaptable in blends with other fibers.



Joseph Bancroft and Sons, Wilmington, Del., announced production of Everglaze on spun rayon, and on blends of cotton and rayon.

For 1947, average consumer consumption of cotton was 27 pounds; rayon, 6.3 pounds; wool, 4.9 pounds.

Tests conducted at the University of Minnesota indicated that flax straw can be converted into linen yarn in four hours by a chemical process which removes gums and other waste materials. The fiber is supposed to be suitable for toweling, sheeting and shirting.

The descriptive name *Saran* was announced by the Dow Chemical Co. The term *Saran* applies to a series of thermoplastic resins chemically known as vinylidene chloride copolymers, originally developed by the Dow Company in the late thirties and known especially for their resistance to chemicals.

In July it was announced that cotton cultivation was about 10% over 1947. California and New Mexico showed increases of 51% and 37%, respectively.

Tennessee Eastman Corporation adopted the word *Estron*. This term will identify its cellulose ester textile yarns and staple.

Burlington Mills, organized in 1923, now

has an organization of 25,000 people employed in a total of 75 plants.

A cotton crop of 15,169,000 bales was forecast by the Dept. of Agriculture for 1948. This means about 3,300,000 bales more than the 1947 crop and 3,200,000 more than the 1946-47 average.

Mandatory labeling of rayon suitings was being sought by the manufacturers of wool fabrics and garments. The claim was made that consumers often confuse the advertising of rayon suitings which use the term *worsted types*. Under the Wool Labeling Act of 1939, labels on woolens must specify actual wool content and type, while the rayon manufacturers mark their products only in compliance with a set of fair trade practice rules specified by the Federal Trade Commission.

The woolen industry has lost 34,000 looms in 28 years, but fabric production has increased about 25%.

Brazil is making rapid progress in sericulture and it is prophesied that this country may lead the world in silk production within the next few years.

A pilot model knitting loom was being developed in the School of Textiles, N. C. State College, Raleigh, N. C. Features of the machine include a pattern control system and greater simplicity in operation.

Cranston Print Works in Rhode Island introduced a double printing method which will give the effect of tropical worsteds and heavy tweeds on popular priced cottons. Materials are washable, vat-dyed and Sanforized.

Du Pont Orlon, previously called Fiber A, was now in pilot plant production. Yarn and fabric can be dyed with acetate, basic and some vat dyes. Technically, the fiber is a polyacrylonitrile development. Resistant to rays of the sun, it can be used for automobile tops, awnings and other outdoor purposes. It can withstand high temperatures. The fabric has a *warm hand* and suppleness. The development of this fiber began eight years ago.

Champlain Spinners, Whitehall, N. Y., and Burson Knitting Company, Rockford, Illinois, cooperated to make the first garnetted nylon fiber and ribbed hosiery from spun nylon yarn.

November brought news that construction of a plant to make Orlon fiber will get under way in March, 1949, in Camden, S. C.

The Cotton Board Conference of Great Britain reported that over 400 million dollars will be spent during the next decade to re-equip the cotton industry. The Government will contribute up to 25% of the amount necessary to modernize and to bolster the spinning phases of the industry.

New England Textile Foundation had to date contributed $245,000 to the four textile institutes and schools in New England: Lowell, Fall River, New Bedford and Rhode Island.

Monocord is the new non-twisted sewing thread of Belding Heminway Corticelli Company. The thread is produced by welding a number of parallel fibers at one point. The absence of spirals or ridges will admit of improved sewing results. The first thread of Nylon is known as *Nymo*.

The per capita consumption of cotton, year ending July 31, 1948, dropped from 33.8 to 31.2 pounds. Rayon per capita consumption increased one pound to 7.3 pounds.

Dr. Claudius Murchison, at the annual meeting of the Cotton Textile Institute in New York, attributed the export drop to 50% of last year's total of 1½ billion yards to the restrictive action of other nations because of their inability to pay in American currency.

It was estimated that about 35% of the machinery formerly used in Ireland to spin and weave linen was now used in the manufacture of rayon materials. There is now a drop of over 50% in linen fabric production as compared with 1937 production.

Tennessee Eastman Co. was using an electronically driven tricot warper said to be able to produce a firm, uniform, compactly filled warp beam.

Committee was organized to start raising funds for the perpetuation of the famous old Slater Mill in Pawtucket, R. I. This was the first cotton mill to be operated in this country.

1949: January opened with the Industrial Rayon Corporation's announcement of its continuous process for viscose spinning.

Opening of the Design Center in London. Financed by industry and government subsidy, this library of textile design and reference collection is available to designers, buyers, etc.

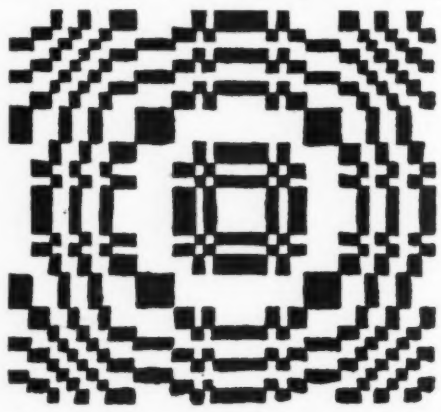
Rayon production for the year 1948 totaled 1¼ billion pounds of filament yarn and staple. This is about one half of the world production and an increase of 15% over 1947. Non-cellulose-base manufactured yarns provided an additional 67 million pounds.

Wool boards in South Africa, Australia, and New Zealand, the International Wool Secretariat, and the American Wool Council merged to form The Wool Bureau, Inc., aimed at fostering the wool industry.

General Motors divisions contemplated using more than 10 million linear yards of interior upholstery fabric and approximately 1½ million yards of top material and interior linings for convertibles. Ford Motor Co. will use about 40 million dollars' worth of textile materials.

Sanforized Division of Cluett, Peabody Co., Inc., began promotion and licensing of their new shrink-resistant process, Sanforlan. To be used on woolens, the process is of the wet-chlorination type, originally brought out by Wolsey, Ltd., and Stevenson of England.

Burlington Mills, Inc., opened their new three-million-dollar plant, Wake Finishing Co., near Raleigh, N. C. The dyeing and finishing



of acetate rayon, rayon, and wool and rayon blends will be done in the plant.

March opened with announcement that Japanese rayon production for 1949 would total 74 million pounds of filament yarn and 54 million pounds of staple; 60% of production is made to be exported.

A Lancashire, England, firm built a heavy cotton loom with a length and width of twenty feet and a height of nine feet. Fabric twelve feet wide and ten times heavier than that turned out by ordinary looms can be produced on this loom to be used for industrial fabrics.

The protein fiber Vicara was now being sold in staple form for 83.2 cents per pound, reduced from one dollar per pound. It was now available in two, three and four denier, in lengths up to six inches.

Celanese Corporation of America opened its new six-million-dollar plant in Mexico to produce continuous filament viscose yarn and staple.

In August, Triangle Finishing Corp., Johnstown, N. Y., announced its *Trianized* process which limits shrinkage to under two percent in both length and width. Color uniformity is also improved.

Worsted Division, Pacific Mills, announced its new stabilized shrinkage process for women's wear. It provides protection against dry or wet cleaning rather than washing. Improved stain- and wrinkle-resistance are also features. At present, the process is used to considerable advantage on gabardines and crepes. The name of the process is *Set*, derived from the three words, *Scientifically Engineered and Treated*.

Forstmann Woolen Company, in conjunction with the Newport News Shipbuilding Company, developed a card which gives higher production, smaller loss of stock and improved timing.

In October, the International Cotton Advisory Committee predicted a world increase in the cotton crop for this year of as much as one million bales.

Deliveries of rayon yarn for November were the greatest for any single month in the rayon industry, 100,200,000 pounds.

On October 25, SCAP terminated floor prices for Japanese exports, including all textiles except raw silk. Floor prices on raw silk will remain until the end of this year.

Dynel is new name for an acrylonotrile-vinyl chloride staple, a product of Union Carbide and Carbon Chemical Corporation.

The U. S. Bureau of Agricultural Economics and The Commonwealth Economic Committee presented the following interesting statistics on estimated sheep population and wool production for the major producing nations, 1948-49 and 1949-50. Carpet wools are included in the figures and *n.a.* means that exact figures are not available.

	No. of Sheep (in millions)		Wool Production (millions of lbs.)	
	48-49	49-50	48-49	49-50
World	714.9	720.1	3,020	n.a.
Australia	102.3	108.5	1,065	n.a.
New Zealand	32.5	n.a.	335	335
South Africa	33.0	n.a.	210	210
Argentina	53.5	49.5	419	418
Uruguay	22.0	22.0	150	150

The cotton crop for this year was estimated at better than 15 million bales, exceeding that of 1948 by more than one million bales. The crop will be, according to estimates, about the sixth largest ever raised in this country.

It was estimated that women in this country pay an average of about $28 a year for coats and suits. This was $8 more than in 1939.

The Wool Bureau, Inc., presented some interesting figures for the cost of a man's $50 woolen two-piece suit. Clean wool fiber accounts for 10.9% of cost; making of the fabric, 16.9%; manufacturing of the suit, 32.2%; retail distribution, 40%. The fabric presented was a 13-14 ounce-per-yard material. Wool top was 62s-64s; fabric needed, 3.3 yards. ■

AMERICAN FABRICS FASHION I. Q.

Quiz

FIND THE OUT-OF-PLACE WORD

In each case, one of the four terms does not belong with the other three.
Underline your choice and refer to the section below for proper answers and explanations.
Score 5 points for each correct answer. 65 passes; 75 is fair; 85 is excellent.

*1.*_____	toque	chèchia	pillbox	skimmer
*2.*_____	bodice	cummerbund	obi	sash
*3.*_____	jabot	pleat	frill	ruffle
*4.*_____	cardigan	pullover	blazer	jacket
*5.*_____	Ulster	slicker	Chesterfield	mackintosh
*6.*_____	braid	appliqué	passementerie	soutache
*7.*_____	stole	poncho	blanket	serape
*8.*_____	gore	godet	gusset	panel
*9.*_____	herringbone	Glen Plaid	shepherd	houndstooth
*10.*_____	accordion	random	mushroom	picot
*11.*_____	raccoon	mink	vicuña	broadtail
*12.*_____	mandarin	deep V	heart-shape	bateau
*13.*_____	jersey	piqué	knit	tricot
*14.*_____	shirtwaist	vest	waistcoat	jerkin
*15.*_____	fichu	gilet	ascot	neckerchief
*16.*_____	crew	turtle	jewelry	surplice
*17.*_____	bertha	shawl	camisole	cowl
*18.*_____	raglan	kimono	set-in	dolman
*19.*_____	gored	flared	circle	box-pleated
*20.*_____	plastron	gilet	dickey	pelerine

CORRECT ANSWERS AND EXPLANATIONS

1. *Skimmer* is a brimmed hat; the others are brimless.
2. *Bodice* is the top part of a dress; the others are wide bands of fabric wound around the waist.
3. *Pleat* is a fold of cloth; others are made by gathering fabric.
4. *Pullover* has no front opening; others have.
5. *Chesterfield* is a single-breasted coat with velvet collar; others are rainwear.
6. *Appliqué* is ornamentation by sewing on figures; others are decorative trimmings.
7. *Stole* is a long, narrow covering for shoulders; others are square-shaped blanket-like coverings.
8. *Panel* is a straight piece of fabric floating free in today's fashions; others are triangular pieces inserted in a garment for ease of fit or in pleats for flare.
9. *Glen Plaid;* others are check patterns.
10. *Picot* is a cut edging; others refer to types of narrow pleats.
11. *Vicuña* is a precious fiber fabric; the others are furs.
12. *Mandarin* describes a high, stand-up collar; the others are cut-out necklines.
13. *Piqué* is a woven fabric; the others are knit.
14. *Shirtwaist* has long or short sleeves; the others are sleeveless.
15. *Gilet* is a decorative piece worn instead of a blouse; others are scarves.
16. *Surplice* is bodice with cross-over front; others are different types of high necklines.
17. *Camisole* is bodice style; others are large collars.
18. *Set-in* describes a sleeve seamed at natural shoulder line; others have no shoulder seam, or lowered one.
19. *Box-pleated;* others have no pleats.
20. *Pelerine* is a cape; others are substitutes for blouses.



THE CONSUMER

The millman, the converter, the apparel manufacturer, the retailer, the retail clerk . . . all constantly use textile words and phrases as selling blandishment . . . all assuming that Mrs. Consumer knows what they're talking about. Sadly enough, a good deal of it is incomprehensible to her. And so writer Cora Carlyle gathers a

Q. Is there any way in which permanent ink can be removed from a yellow linen dress? I have washed it with cool water and a mild soap, but a light stain still remains.

A. You were right in using the method you chose because it did remove the surplus ink. The light stain that remains cannot be removed at home without danger of also removing the yellow color of the dress. We suggest that you give the dress to a dry cleaner who is a member of the National Institute of Drycleaning, or to a laundry which belongs to the American Institute of Laundering. Both these organizations have specific methods for dealing with this problem. For example, even if they should remove the yellow color with the stain they will know how to replace it. Be sure to tell the cleaner or the laundry that permanent ink caused the stain.

Q. I am having difficulty finding information about khaki for a paper I am preparing on uniform fabrics and colors. Can you help me?

A. Khaki is a Hindu word meaning dust colored, and it is also related to the Persian *khak:* dust.

The story of how khaki came to be a color for army uniforms was told me by Arthur Whiteside, who has done a lot of research into textile history. During the Sepoy Rebellion (1857-58), British soldiers wore white drill uniforms which were soon stained by dust and sand mixed with the perspiration and blood of battle. The idea was born to dye the fabric a sand color. To this day, the term khaki means just this shade.

Khaki-colored uniforms were used by the British in the Boer War in 1899. In the Spanish-American War, American forces introduced a variation of khaki which was called olive-tan. The German army, during World War I, adapted khaki to the color of the European terrain as a camouflage measure and produced the well-known greenish-gray color.

Today, khaki implies a woven cloth of plain, twill or drill construction that is sand-brown in color. Our armies still use it for training, field and dress wear, although there are several accepted standard shades. Khaki is found in civilian dress in trousers and riding breeches.

Q. A chemist told me that cotton yarn can now be dissolved by chemical process, and that this development will lead to many new uses. What would some of them be?

A. Your friend probably heard a recent talk given before the American Chemical Society, in which the following uses for these "disappearing cotton yarns" were outlined:

1. Lace can be made by embroidering on soluble fabric and then dissolving the backing material.
2. Temporary basting threads no longer have to be picked out — they can be washed out.
3. Crepe nylon can be made by twisting nylon with soluble cotton, heat-setting the twist, and then dissolving the cotton.
4. Wool can be blended with soluble cotton for the weaving stage, then washed out to produce a woolen fabric that will be lighter in weight than any woolen we now know.

These are only the first few ideas for utilizing this new development, but they do give some indication of its probable impact on all segments of the textile industry.

Q. Is it true that they are now making apparel of paper?

A. Fabrics are now being produced that may be called "paper fabrics" because they are neither woven nor knitted, but constructed by processes similar to those involved in making paper. One method of manufacture starts with a web of nylon held together by an adhesive or bonding agent, to which cellulose wadding is laminated on both sides. A fabric of this type is now being widely used for square-dance skirts, swimsuits, rain capes and jackets.

Paper fabrics can be printed in solid colors or motifs and can easily be cut and sewn on a machine. Some apparel manufacturers are interested because, with further development, it may be possible to produce white jackets, smocks and aprons at such low cost that they can be discarded when soiled.

Paper garments and fabrics made their first appearance during the last months of World War I in Austria and Germany, when basic shortages of raw materials forced them to produce uniforms, shoes and other apparel from several types of treated paper. After the war, there was no further interest in this type of fabric. It will be interesting to see if this current development will catch on and find a place in the textile world, or if it will also peter out.

Q. I read that sheer window curtains are now being made of plastic. Can you tell me about these curtains? Are they really sheer?

A. You, no doubt, refer to curtains made of Saran and Velon which are now widely distributed. The sheer types are woven in a fine marquisette construction and are truly sheer yet hardy. They can withstand washing by machine and retain their crispness without the aid of starch or ironing. The curtains will dry fast and require neither bleaching nor blueing.

Q. Is there a type of suede leather that can be successfully dry cleaned? I enjoy wearing suede jackets, but have always had trouble keeping them clean.

A. Suede, with its luxury feel and beautiful surface, has always been a consumer favorite, but its popularity has been restricted by the great difficulty in removing spots and preventing streaks. Now Du Pont has devised a process utilizing a chemical com-

WANTS TO KNOW...



group of typical Mrs. Consumers before each issue goes to press . . . asks them what they'd like clarified in textile terms . . . and puts the questions to Dr. George Linton, Textile Editor. Here is the latest group, and the answers may provide illuminating information for the benefit of many readers.

pound called Quilon which virtually eliminates these problems.

Quilon, applied to suede during the tanning process, replaces the old-time lubricating agents and does a better job. It anchors in the microscopic fibers of the leather to make it water- and stain-resistant. Many spots and stains can be wiped off easily as they occur. Even greasy stains — the type that will "bite" into ordinary suede — are easier to remove. And dry cleaning costs have come down in price because the cleaner does not have to expend so much irksome effort in cleaning a garment. In addition, the process imparts flexibility to the material and improves its colorfastness.

You will find Quilon-treated suede in coats, hats, jackets, skirts, and gloves. It will be clearly identified as such by the hang tag.

Q. I have a keen interest in fabrics and apparel which will reflect light and make it safer for my children to be out after dark. What is the latest news in this field?

A. Garments made of fabrics which contain reflective yarns can now be found in stores throughout the nation. Often the yarn is worked into a wide band or series of figures which decorate the garment. In the daytime the reflective yarns do not betray their presence, only at night are their reflective properties apparent.

One of the latest yarns of this type is *Flecton* made by the Minnesota Mining and Manufacturing Company. It is produced by coating textile yarn with round glass beads so small that they are applied in powder form. When light shines on the treated yarn, a bright silver glow is observed.

Most of the yarns treated so far have been rayon or nylon, but others may be treated in the near future. It is claimed that washing and dry cleaning do not affect reflective yarns, but we recommend that you read the tag on the garment for correct handling directions.

Q. I was told by a textile man that the fiber from the bark of redwood trees is being used in the manufacture of textiles. Can you tell me something about this?

A. It has been said that the oldest and the biggest living things in the world are the redwood trees in California. The bark of these trees is regularly harvested by the lumber companies according to specified forest practices, shredded and then graded in three qualities. Even the best bark is very inexpensive. Most of it is used for insulation purposes, while the better grades find their way into the manufacture of paper.

Textile manufacturers have used the fiber in some special cases because of its resiliency, and when other staple fibers were scarce, as in time of war. I have some Mackinac reefer cloth which is 50 percent redwood fiber and the usual tests given this type of material proved it to be quite satisfactory in wearing qualities. Redwood-fiber fabrics may have a future as well in highly styled fabrics for the drapery and upholstery markets because of their resilient qualities.

Q. In a local department store I saw a dress of nylon organdy. I was under the impression that organdy was always made of cotton. Am I wrong?

A. The first organdy fabrics were made of silk yarn, but organdies are so often made of cotton today that the consumer has come to believe they are synonymous terms. They are not. Organdy is a very lightweight, practically transparent fabric made of tightly twisted yarn in a plain weave and stiffened with a permanent finish. It can be made of silk, cotton or, as you have discovered, nylon. The new nylon organdy has some of the desirable qualities of silk organdy — smooth surface, luster and appealing touch. Silk and nylon organdy are also softer in texture than cotton.

Q. Just how do they give the appearance of mink to the new coats made of Orlon and Dynel pile?

A. The shading and striping characteristic of mink is applied to Orlon and Dynel pile fabrics by hand with a special dyestuff. The work is done on pieces already cut and ready to be made into a coat, just before the fabric is sewn. This makes it easier to apply the necessary striping on each part in the right direction for the desired effect. Several colors in stripings are available, from platinum gray to dark brown. Coats treated in this manner are said to have good lightfastness, to be fur-cleanable and to resist spotting.

Q. I recently read that in the restoration of the first floor of Independence Hall in Philadelphia, 100 yards of green baize were used to cover the tables. What is green baize and what is it used for?

A. Baize is a very high quality woolen material made of merino yarn of the highest grade, dyed green and used primarily for covering pool and billiard tables. In fact, it is sometimes referred to as billiard cloth. It is very closely woven in the plain weave pattern and the nap is short, thick and very smooth. Finishing of the fabric is as much an art as a science. Green baize is one of the most expensive woolens known today.

The name is a corruption of the plural form of "bay" — the reddish-brown dye used to color the original fabric.

In Colonial times green baize was used as a table cover for small, round occasional tables. The fabric used in Independence Hall was woven on hand looms in a mill in North Carolina. A sample of 18th century baize, imported from England, was used as the analytical fabric for the reproduction.



American Fabrics, *basic textile merchandising publication, has won warm commendation from such top store executives as Stanley Marcus, president of Neiman-Marcus, Dallas, and Dorothy Shaver, president of Lord and Taylor, New York, because it possesses a very special quality of creative thinking.*

Again and again, in addition to dramatizing latest fabric developments, its pages have provided vital answers to sales problems by pointing the way to fertile themes for merchandizing campaigns . . . such as the now classic Clan Tartans, Paisleys and Oriental Colors . . . and (in this issue) the ancient Pre-Inca textile arts with their glowing colors and brilliant, informal designs.

This magazine cannot be placed on the newsstands — it is too fine and costly to be produced for more than limited distribution — but you can receive it at your office or home, or you can send a copy as a special, and welcome, gift to a business friend or associate, by mailing the adjacent card today. We will be glad to bill you later.

NOTE: *A few individual copies of the Museum of Modern Art, Textiles, U.S.A. issue are still available.*

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Buchanan & Company, Inc., New York City

STANDARD-COOSA-THATCHER COMPANY 14
Liller, Neal & Battle, Atlanta, Ga.

UNION CARBIDE & CARBON CORPORATION (DYNEL) 9, 9a, 10, 10a
Anderson & Cairns, Inc., New York City

white

Because the new whiter whiteness is moving more merchandise faster, white fabrics call for the highest possible degree of whiteness that modern textile finishing can impart... effectively, economically.

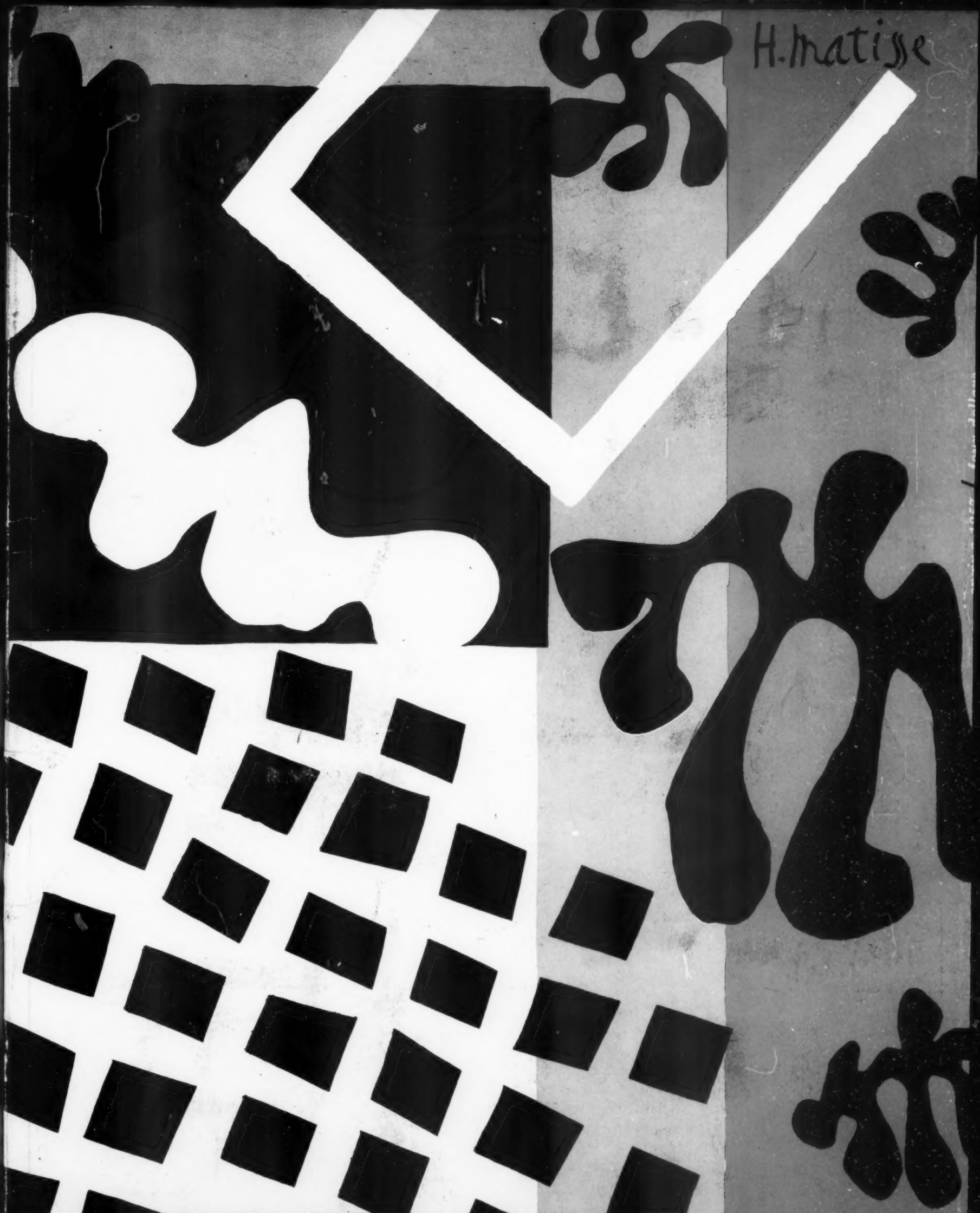
From textile finishing to laundry detergents, the achievement of ways and means to make white whiter has been due in large measure to CIBA's pioneering development of a truly efficient optical bleach.

Uvitex® is this CIBA product... another important member of the CIBA family of dyes and textile finishing products born of CIBA research.

CIBA



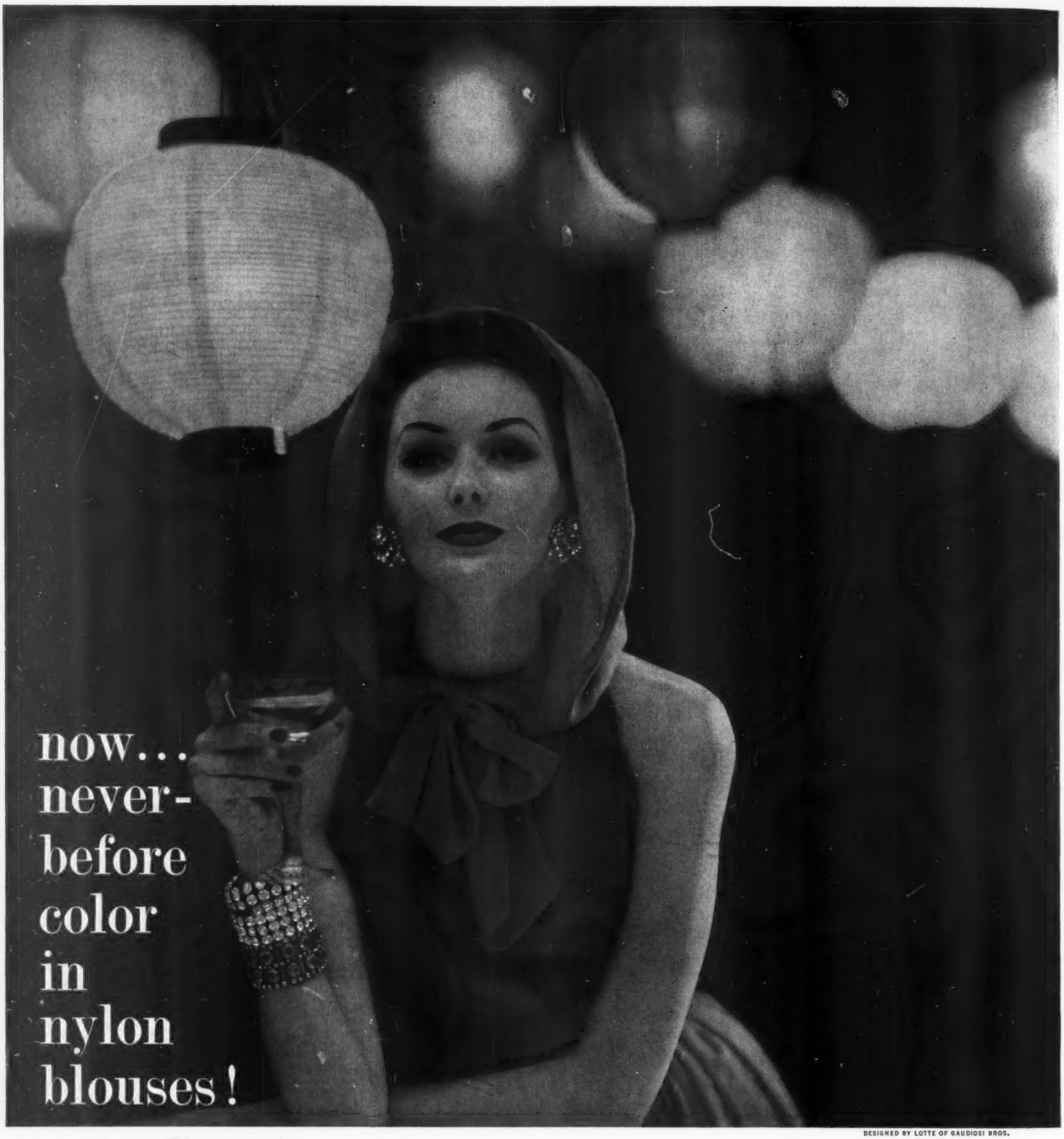
AMERICAN FABRICS



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american fabrics number 40

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DESIGNED BY LOTTE OF GAUDIOSI BROS.

dyed the **Chem-nyle*** way, they're glowing-rich . . . completely fast to washing

IT'S A NEW WORLD FOR BLOUSES! For here's georgette . . . delicate, sheer, deliciously fragile. But . . . with a difference: this georgette *wears*. It won't snag. It won't pull at the seams. It won't rumple or go limp. It's wearable, washable, far more wonderful . . . because this georgette's made of *nylon!*

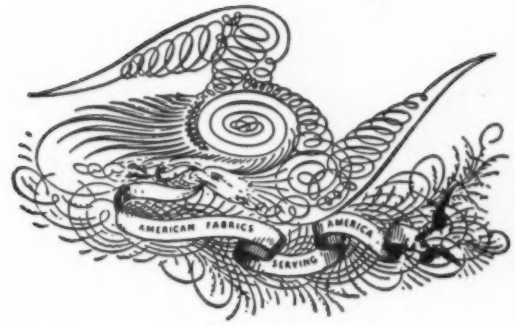
IT'S A NEW WORLD FOR NYLON . . . a world where colors are completely washfast! Deep colors won't run. Bright colors won't fade. Pastels won't get washed out. What made it possible? Chem-nyle, a revolutionary dye process perfected by Chemstrand. Chem-nyle is another example of the quality you can expect from the only integrated plant, the most modern research facilities, the most exciting name in nylon: *The Chemstrand Corporation.*

**Patent applied for.*

CHEMSTRAND® NYLON

Chemstrand makes only the yarn; America's finest mills and manufacturers do the rest.

THE CHEMSTRAND CORPORATION, 350 Fifth Ave., New York 1 • PLANTS: CHEMSTRAND® NYLON—Pensacola, Fla. • ACRILAN® ACRYLIC FIBER—Decatur, Ala.



AMERICAN FABRICS

dedicated to the belief that Fashion begins with the Fabric . . .
that the American textile industry exerts a major
influence on the economic and social
aspects of the world in which we live and that it has deservedly attained
the world's pinnacle from which it can never be dislodged.
This volume number forty of American Fabrics focuses its editorial spotlight
on a special aspect of Henri Matisse as a source of design and color
inspiration, on the story of two creative women in textiles, on
the introduction of the Andrew Carnegie Plaid in this country, and presents
the broad directions for fall and winter fashion fabrics.